

The Letort Papers



In the early 18th century, James Letort, an explorer and fur trader, was instrumental in opening up the Cumberland Valley to settlement. By 1752, there was a garrison on Letort Creek at what is today Carlisle Barracks, Pennsylvania. In those days, Carlisle Barracks lay at the western edge of the American colonies. It was a bastion for the protection of settlers and a departure point for further exploration. Today, as was the case over two centuries ago, Carlisle Barracks, as the home of the U.S. Army War College, is a place of transition and transformation.

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THE LETORT PAPERS

CHINESE ENERGY SECURITY: THE MYTH OF THE PLAN'S FRONTLINE STATUS

Ryan Clarke

August 2010

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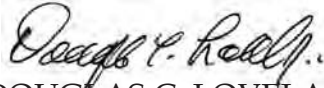
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FOREWORD

The continued impressive growth and development of China, while always of critical strategic importance, has surged in recent years to the forefront of the consciousness of American policymakers, scholars, and the news media, as well as the general public. This trend has been accelerated by the staying power that China demonstrated following its relatively graceful weathering of the global financial crisis, in the process defying a wide range of doomsday prophecies of massive organized riots by newly unemployed rural factory workers and various other classes of people angry with Beijing over economic slowdown or stagnation. The future directions of China cannot likely be predicted with any reliable degree of accuracy (though this does not prevent many from trying); thus, the best methodological approach is to obtain the most rigorous understanding possible regarding the dynamics of China's current security challenges. While many Chinese strategists now take a holistic and more internationalized view of China's security environment, with Western analysts speaking frequently of Chinese global power projection, its domestic energy security and regional territorial disputes are two of the most pressing security issues with which Beijing must grapple. The latter requires a strong People's Liberation Army Navy (PLAN) while the former, contrary to most analyses, actually has a minimal role to play given the nature of the market.

A key aim of this work is to demonstrate that the greatest threat to Chinese energy security is domestic market inefficiencies and perverse incentive structures, thus clearly highlighting the "myth" of

the PLAN's frontline status. As the Sino-U.S. relationship continues to assume greater strategic importance, energy security is a component that Washington and Beijing can simply not afford to get wrong. As opposed to dedicating substantial resources to planning for conflict scenarios that are based upon fundamentally flawed conceptions, namely, naval blockades designed to starve China of energy resources or strategies to preempt or circumvent one of these blockades, both parties would be much better served by focusing on sound economics and distribution/refining practices. Cooperation in this sphere is not only a much more immediate and realistic option; it also deals with the root of the dilemma, something which is clearly in the interests of the United States as well as China.



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SUMMARY

This monograph examines the dynamics of China's energy security dilemma and the role of the People's Liberation Army Navy (PLAN). Following this, PLAN development is discussed, and its future role in regional security is hypothesized. This report argues that it is domestic market inefficiencies and poor management practices that pose the greatest threat to China's energy security. Further, less and less of Chinese energy imports are making their way to the country by sea; thus the PLAN actually has a minimal role to play. Given these realities, Chinese fears of a naval blockade that deprives it of energy supplies as well as American confidence that this is a realistic strategic option in the event of hostilities are implausible. In addition, Beijing's desire to develop aircraft carriers and other high-tech naval capabilities combined with its contribution to the anti-piracy mission in the Gulf of Aden have led many analysts to erroneously conclude that China seeks to engage in global power projection like the United States. However, the focus of the PLAN will remain regional and on asymmetric capabilities, namely, the effective use of submarines and other undersea devices that ultimately seek to deter American and possible Japanese involvement in a conflict over Taiwan and/or in the South China Sea, such as the Spratly Islands, which China views as inalienable parts of its territory. Although China's interests are expanding and becoming more international in nature, recovering from the century of humiliation and ensuring domestic legitimacy remain the top priorities of China's leadership.

Chinese Energy Security: The Myth of the PLAN's Frontline Status

The Dynamics of China's Energy Security Dilemma.

To play a great power role, the People's Republic of China (PRC) needs to develop capabilities which would allow it to secure its global economic interests and trade routes and provide muscle behind its diplomacy. It also needs military capabilities which are able to deter or defend China against other great powers, first and foremost the United States.¹ The Chinese are keen to safeguard their economic interests, not a surprising fact given that economic performance is often linked to the legitimacy of a government or ruling party. However, China's economic interests have begun to expand far beyond its own territory in recent years, and the PRC is now the world's third largest trading power and third largest economy, with the latter achievement heavily reliant on trade and, by extension, its sea lines of communication. China has tasked the People's Liberation Army (PLA) with protecting the PRC's maritime rights and interests though it is not currently up to the job. Nonetheless, in a December 2006 meeting of senior Party members of the People's Liberation Army Navy (PLAN), President Hu stressed that China is a maritime power and that the PRC "should endeavor to build a powerful people's navy that can adapt to its historical mission during the new century." He went further to say that the PLAN has the "important" and "glorious" responsibility to protect China's authority and security, "and maintain our maritime rights."²

Energy security entails three essential goals: the availability of energy needed for stable economic growth and social development; freedom from interruption of the energy supply; and the affordability of energy prices. As such, thinking about the possible instruments for achieving energy security does not necessarily have to begin with assessing a nation's military options. Energy security considerations actually have more to do with geopolitical factors and the national policies of different countries, each of which affects the control of energy developers and energy transportation around the world.³ Nonetheless, the growing gap between domestic supply and demand has led China's national security apparatus to view energy as a core national interest. Energy security is not only economically vital, but also has political, diplomatic, and military implications. The legitimacy of the Chinese Communist Party (CCP) is largely based on rapid and sustained economic growth, and this is precisely why Chinese leaders are actively involved in energy diplomacy towards Russia, the Middle East, Central Asia, West Africa, and even Latin America.⁴ If China's economic growth were to slow appreciably for a sustainable period of time while information continues to leak in from outside of China, the fragile social contract between the CCP and its citizenry would be undermined. In such an event, all classes of Chinese society, especially the educated and semi-educated, would become less likely to tolerate the current authoritarian government or continue to sacrifice political freedoms which are considered basic in the West. Even with China's current high growth rates, the social contract is beginning to show signs of strain, and since a growing number of international news reporters and analysts are finding new and innovative

methods to circumvent the “Great Firewall of China,” China appears poised to enter a potentially dangerous period in its history.⁵ The late political scientist Samuel Huntington cautioned that most revolutions occurred when per capita income is in the \$1,000 to \$3,000 range.⁶

There is a growing fear in Beijing that the United States may attempt to cut off the sea lanes used by Chinese tankers in the event of a deterioration in relations with Washington. This drives much of the modernization efforts of the PLAN and the People’s Liberation Army Air Force (PLAAF). Even prominent civilian Chinese analysts have cautioned:

It must be made clear that China is not a small regional power like Iraq or North Korea. If confronted with serious threats to its energy security, it will mobilize all its economic, political, and military resources to ensure a secure energy supply, or to interfere in the supply chains of the United States and its allies like Japan in key chokepoints such as the South China Sea, the Strait of Malacca or even the Taiwan Strait. These counterbalancing measures would, of course, be a last resort.⁷

Further, during times of war, foreign ships carrying oil and gas would be targeted by China for naval interception, even within the distance between Dalian in the north and Guangzhou in the south, and pipelines over land would not be immune from aerial attacks. Oil transportation routes, whether on land or sea, are justifiable military targets because a modern military relies on oil to move its armor and personnel to the front line. Still, these same analysts also note that, in actuality, the United States and China are not in direct competition on most energy issues, although

China's acts of energy diplomacy do undermine U.S. goals of isolating or punishing "rogue states."⁸ It should be noted that China's dealings with some of the world's less savory governments, such as Sudan, have led to much criticism from Western governments as well as the news media. However, given the dominance of Western oil/energy companies and the near stranglehold that they enjoy over resources in nations governed by more internationally accepted regimes (with a few notable exceptions), China does not have the luxury of being able to be overly discriminating in its energy-related dealings if it wants to maintain economic growth and ensure social stability at home.

There is great anxiety in Asia over the belief that world oil production cannot keep pace with soaring global demand despite most mainstream assessments projecting macro-stability for at least the next 20 years. Though there is wide latitude for short-term price volatility and for swings in supply and demand, the overall long-term outlook should not cause much alarm. While world oil demand is increasing by roughly two percent each year, a general equilibrium will largely prevail, thanks to the large oil capacity in the Middle East. However, technological setbacks and geopolitical upheaval that could severely disrupt the flow of oil cannot be ruled out for the indefinite future.⁹ Nonetheless, there has not been a single major incident of intentional disruption of China's overseas energy supply since the early 1990s when China became a net importer of oil, thus making such issues mostly psychological in nature. Still, China's fears are exacerbated by discussion among the major world powers of a "China threat" to their respective energy supplies. Like all countries, Chinese society has a limited tolerance for shortfalls in energy supply. The challenge for

China's energy security policy is to factor risk-taking by the energy industry into the domestic arena. Taking this into account, dialogue with international actors over energy should include the sharing of technological expertise and management know-how so Chinese energy corporations can lower the risks.¹⁰

The Chinese economy is more resilient in the face of oil price shocks induced by supply disruptions than many realize. Even if Saudi oil, which accounts for nine percent of global supply, disappeared, China's annual gross domestic product (GDP) would decline by less than two percent, and Beijing could likely ride out the disturbance. Disruptions in Iran would have even less impact. It can be persuasively argued that such geopolitical threats to Chinese energy security as price swings can be readily tolerated.¹¹ Bruce Blair *et al*, believe that Chinese planners should worry less about the geopolitics of oil, (since the threats are not nearly as serious as initially perceived) and dedicate more attention to conservation, energy efficiency, liberalization of domestic energy investment and markets, and other domestic components of energy security. Control over these factors would offer much more leverage against the challenge.¹² Mao Yushi advances this point:

Countries and companies that badly need resources can freely acquire them on the commodity markets. War and killing over resources have been rendered unnecessary. Taking Japan as an example . . . , it remains a resource-poor country, yet it has achieved the status of a world economic power. It purchases all vital resource and energy needs.¹³

The cases of Japan and other resource-poor Asian countries that still maintain high levels of economic

growth, such as India, South Korea, and Singapore, clearly highlight the fallacy that the PLA, and more particularly the PLAN, are on the frontline in the defense of China's energy security. This notion runs contrary to most analyses conducted by the military, which erroneously looks at the issue within an overly narrow, military-centric paradigm. As the next section demonstrates, there is actually very little that the PLA can do to safeguard China's energy security, and the PLAN's future roles will most likely be in regional conflict scenarios.

Market Inefficiencies: China's Primary Threat.

Despite the pressures of the world environmentalist movement, coal is, and will continue to be for the near to mid future, the primary source of energy in China since domestic resources are abundant. Energy specialists tend to agree that there is sufficient domestic coal to sustain the country's present consumption rate for decades to come. However, the pressure to deal with the environment and social consequences of China's coal mining industry is growing. It is unfortunate that the central government has made *mei wei ji chu* (coal as the basic source of energy) the main pillar of its energy strategy, though this policy was developed largely in response to the mounting international outcry about a Chinese threat to global energy supply. The policy is often abused by all levels of government, since new coal mining projects do not require much of an investment in the latest technology, and they can take advantage of the fact that cheap labor and migrating rural labor are still widely available in China. As a result, officials often opt out of supporting financially risky projects for developing alternative sources of supply, such as renewable energy.¹⁴

The reshuffling of the coal industry has been more successful than in the oil or power sectors, since the participation of the private sector has been substantial, especially in township and village coal mines.¹⁵ At their peak in 1996, these small coal mines produced 45.6 percent of China's total coal.¹⁶ Conversely, in the same year, state-owned mines which were operated by the Ministry of Coal Industries (MCI) accounted for 38 percent of China's total production.¹⁷ However, these village mines largely serve local needs and are not part of an integrated national system. Energy shortages will therefore continue despite China's adequate domestic supply. As long as the coal distribution network remains fractured and disjointed, China will be unable to fully capitalize upon this endowment and will remain vulnerable to power cuts and other shortfalls that stymie the type of sustainable growth which reduces poverty and generates employment. It will also greatly discourage investments in rural and semi-urban areas, places where the threat of social unrest is the most acute.

Establishing proper energy prices depends on China's energy security—such security is the basic prerequisite for allowing China to accurately adapt to and reflect market fundamentals in pursuit of sustainable development. As with all countries, raising energy prices is politically risky in China. Though prices are still mostly government-controlled, the consumer price of oil in China is quickly approaching the level of U.S. averages. This leads to many complaints, especially from the Chinese media, because the per capita income gap between China and the major industrialized countries is substantial. Not surprisingly, domestic suppliers are accused by Chinese energy analysts of being motivated solely by profits and of monop-

lizing the domestic energy supply chain.¹⁸ However, Zha Daojiong, along with Yong Xi, two well-known Chinese energy analysts, claim that prices must still be readjusted upwards and believe that keeping oil prices artificially low to make room for further growth of “pillar” industries, such as automobile manufacturing, is unjustifiable. Expanding on this, they say that, given the current state of China’s economic development, automobiles (especially those for personal use and convenience) still remain luxury items in China and should therefore not receive preferential treatment from the government.¹⁹

A number of price distortions and import quota systems work against China’s oil security, since they create perverse incentives that contribute to artificial shortages of gasoline and diesel. For example, the import quota is largely controlled by the big three oil companies—state-owned China National Petroleum Corporation (CNPC), Sinopec, and the China National Offshore Oil Corporation (CNOOC). If private or smaller companies produce oil overseas and obtain import quotas, they must sell the crude oil to refineries which are owned by the three large companies at local prices, essentially discouraging the private oil companies from investing in drilling abroad and bringing more oil back to China. This regulatory framework even extends to the larger enterprises. The suppression of domestic fuel prices leads to inefficiency and even encourages consumption during a time when China increasingly depends on foreign oil. Also, by keeping retail prices artificially low, China’s energy sector is put under strain because it is forced to purchase crude oil from the international market. Domestic oil fields controlled by Sinopec account for only half of the company’s refinery needs. China then

must pay the international market cost for the crude oil which has to be imported to meet the country's needs, but still sells refined products at domestic prices—a clear money-losing situation.²⁰ When international prices are high, there are serious disincentives for refineries to sell their products within China. This was seen when China's exports of diesel and gasoline actually increased in 2004 even though fuel shortages were being felt in south and east China. During this same period, it was also estimated that 1,200 tons of oil products were smuggled out of China every day.²¹ Zha Daojiong is an ardent proponent of raising domestic oil prices:

In a strategic business sense, a key instrument for encouraging the global flow of energy to China would be to allow the domestic price levels to rise above international and regional averages. This would provide energy developers and traders the single most powerful incentives not to disrupt supply to China. It would also motivate them to mitigate political interference in business interactions between China and the rest of the world in the realm of energy.²²

These measures make economic sense, serving as they do multiple objectives (i.e., they would help to correct fundamental imbalances in China's energy market that will prove fatal if not addressed), and would do more to help ensure a stable overseas energy supply than any PLA mission ever could. However, with the recent global economic crisis, which has prompted the closure of thousands of small and medium enterprises (SMEs), the CCP cannot yet implement these reforms without taking a sizable political risk. As is the case in many countries, political considerations trump sound economics.

China's fiscal and tax reforms in 1994 undermined many of the incentives for the promotion of energy conservation, especially in rural areas, that had been built into previous policies.²³ Government support is vitally important for all the actors associated with energy conservation, and in overcoming the many obstacles to effective energy conservation which exist in all aspects of the product life cycle. This support usually comes in the form of financial and tax policy incentives which can be divided into several categories: one is comprised of policies that promote energy conservation by lowering its investment costs (financial allocations, tax reductions or exemptions, and preferential loans); another form of support includes measures which increase the cost of energy consumption, energy and environmental protection taxes for example; yet another method of government support comes via the strengthening of market signals by managing prices in such a way that they reflect various externalities. Combined, these tools could go a long way toward managing energy demand, implementing voluntary conservation agreements and energy audits of companies, and promoting energy efficiency standards.²⁴ Though all of the aforementioned approaches play an important role, given the nature of the Chinese energy market, it is likely that the third route will prove the most critical.

The power shortages which continue despite restructuring clearly demonstrate that the 2002 overhaul of the electricity sector was not successful, illustrating the adverse impact a malfunctioning power sector can have on China's energy security. Instead of promoting competition, the separation of power generation from transmission interests actually concentrates these assets in the hands of state grid companies, thus cement-

ing their monopoly and inhibiting the formation of a viable power market. In addition, since provincial grid companies tend to base their expansion plans on local factors, it is impossible for China to establish a nationwide electricity distribution system. Today, the National Development and Reform Commission (NDRC) has all administrative authority just as it has in the past, even though it lacks knowledge about local markets and impedes the efficient processing of project applications.²⁵ A system such as this, which grants one government body disproportionate influence, is not only conducive to corruption and the type of self-aggrandizement that has sparked multiple riots in the country, it also serves as a major deterrent for foreign capital investment and associated technical and management expertise. All the while, China is seeking plant and transmission materials across the globe, claiming they will enable the electrification of the whole country. However, this monumental achievement will not be possible unless the NDRC establishes an integrated network of regional branch offices that either coordinate closely with provincial grid companies or replace ones that refuse to modernize. Further, public-private partnerships (with the government holding a 51 percent equity stake, while private investors hold the other 49 percent) would serve China well, although any foreign investors who expect to gain a controlling stake in a strategic asset would be naïve indeed.

Achieving a stable energy supply is also inhibited by several structural contradictions in energy consumption patterns. A sustainable development model is one which productivity rises even as resource consumption falls, but in the case of China productivity is rising while resources are being consumed even

faster. Further, while the PRC's demand for resources increases, its access to external resources has not increased at the same rate. As China has become the factory of the world, resource shortages are quickly becoming an inhibitor of China's development process.²⁶

In 2005, the Chinese government finally announced a policy goal to reduce energy consumption per unit of GDP by 20 percent by 2010 (compared with 2000 levels.)²⁷ This suggests a CCP realization that it must begin putting the brakes on the current path of high-speed growth, even though conservation can be financially costly and politically risky for subnational officials if they fail to achieve high growth. While they may fall short of their goal, it would be far more damaging if the current policy momentum towards efficient energy consumption flags substantially. Streamlining domestic industry in order to boost domestic supply cannot be a replacement strategy for acquiring energy supply from the international market.²⁸ With technical and scientific assistance, China could increase its domestic oil recovery rate (the amount of oil acquired from the ground as against estimates of available reserves) and consequently reduce pressure on the global oil market. China also needs to find ways to augment its oil refining capacity, possibly through international cooperation. Technological bottlenecks in refining limit the quantity of heavy oil that China can process. This can become problematic, since heavy crude oil accounts for one-third of total crude imports, and deficits in oil refining technology mean that Chinese oil refiners cannot turn out oil products for the same profit as their international counterparts; large quantities of high-quality oil products must be imported.²⁹ Since these imports are purchased in U.S. dollars, China must dip into its foreign currency

reserves, something which will have negative implications in other sectors of the Chinese economy and society. Although the PRC leads the world in its holdings of foreign currency reserves, such a system will inevitably erode the nation's finances, especially with China's concurrent practice of pegging its currency at an artificially low rate against the dollar. This inhibits the country's ability to invest in critical areas such as education, infrastructure, and military development. Also, factors such as a diminishing foreign currency reserve and declining social indicators often prompt capital flight, leading to further currency depreciation. While Beijing does not face this problem in the near-to-medium future due to its sound long-term planning, this hardly means it is immune forever.

The monopoly³⁰ enjoyed by CNPC, Sinopec, and CNOOC makes it difficult for private oil companies to bring additional oil supplies into the domestic market and, in turn, harms China's energy security. As exploration rights are controlled by the three big oil companies, private companies tend to concentrate on the downstream sector or invest in upstream projects abroad. Privates companies' poor access to upstream supplies is one of the reasons they are forced to pay high prices for crude and sell their refined products at low domestic prices. In addition, unlike Sinopec, these companies do not receive government subsidies, and high international prices quickly put them at risk of bankruptcy, thus making the private sector and the competitive environment dangerously fragile.³¹ Without effective private sector participation, China can hope neither to improve efficiency in the domestic energy market nor to encourage the type of innovation necessary to ensure stability. State-owned companies will eventually have no incentives to keep costs low,

maximize profits, and develop new technologies and management practices. As it stands, they are notably more reluctant to reinvest their own revenue, given the steady stream of state funds they now enjoy.

As briefly discussed earlier, current analyses focus almost solely on the notion that energy security is based on continued access to an energy supply at a reasonable price. However, in reality, oil imports are only one dimension of China's energy security concerns and are not even the most important. Not enough attention has been given to the more obscure, though critical, factor of China's domestic energy institutions and their role in addressing the country's energy security challenges at home as well as abroad. Energy institutions are indispensable instruments which shape, govern, and regulate a country's energy economy, and their structure determines the performance of a nation's energy industry and its ability to safeguard that industry. This determination comes down to whether institutions are able to produce and implement a coherent national energy strategy while also fostering an industry that can meet a country's growing energy needs. In the case of China, the evolution of its energy institutions has largely crippled Beijing's ability to carry out a national energy strategy. Furthermore, under the current institutional structure, the energy industry cannot meet the challenge of securing China's increasingly complex and burgeoning domestic energy demand. This being the case, if China is to ensure its energy security, it must first restructure its energy institutions.³²

At present, the make up of China's energy institutions exhibits a high degree of organizational confusion that can be attributed to its complex origins. China's modern energy industry was modeled in part

on the economic structure of the former Soviet Union and adapted to China's environment. The end result was a baffling combination of vertical institutions (*tiaotiao*) as well as horizontal institutions (*kuaikuai*). Vertical institutions included commissions such as the State Planning Commission (SPC) and the State Economic and Trade Commission (SETC), which sought to integrate energy policies with other facets of the economy. This category also included ministries in charge of specific energy industries such as coal, power, petroleum, and nuclear industries and subsumed both the central- and local-level government organs. Horizontal institutions were comprised of nonenergy industries like the Ministry of Finance and the Ministry of Railways that nonetheless maintained responsibility for some segment of China's energy policies at both central and local levels. Vertical institutions were designed to ensure Beijing's central control over these key industries, while the horizontal institutions were largely a remnant of the governance structure of the Union of Soviet Socialist Republics (USSR). Though reforms have been made to this outdated system, China still does not have a central energy policymaking body.³³

It would be wise for China to establish such a body as soon as possible if it is to develop a coherent strategy to ensure its energy security. Ideally, this body should be headed by a Central Committee of former industry executives and academics who are not necessarily members of the CCP; the committee would initially have to be appointed, but members could be continuously reelected every few years. Such a body should also incorporate smaller government agencies, such as the ministries of coal, power, and petroleum, while developing strategic partnerships with vertical institutions like the SETC. Dialogue would also have

to be maintained with relevant agencies like the Ministry of Finance as well as private sector leaders. This system would require constant discussion and information exchange—a marked break from the once-a-year meetings that characterize much of China’s policymaking—plus more democratic practices in decisionmaking. The Central Committee of this newly formed body would also need an odd number of voting members in order to avoid the type of deadlocks that encourage arbitrary decisions and other forms of nontransparent, authoritarian behavior which undermine investor confidence and public faith in the system.

Key Sources of Supply.

China’s dependence on international energy imports is rapidly changing from a relationship of relative dependence to absolute dependence. China will not be able to control its own development goals without corresponding control over the resources that fuel its economy.³⁴ Chinese realists argue that China must accelerate its naval buildup, since its military capabilities lag far behind China’s energy interests, and that naval warfare is the ultimate arbiter for great powers in solving international trade disputes.³⁵ Though the PRC would be wise to increase its naval capabilities for a range of strategic reasons, such an endeavor would be a long and difficult process that cannot be viewed as an immediate solution to China’s energy insecurity. Further, as will be discussed, international market dynamics are rendering navies less relevant in both ensuring energy security and denying that security to an adversary. Unfortunately, this fact has been lost on some of China’s most senior energy analysts

who, while recognizing the criticality of the market, refer to China's lack of a blue-water navy as the nation's Achilles heel when it comes to ensuring China's energy security.³⁶

At present, Sudan is China's largest overseas production base; more than half of the country's oil exports go to Chinese companies.³⁷ Given the dire humanitarian situation in the oil-rich Darfur region in southern Sudan, the United States advocated United Nations (UN) sanctions on Sudan. In September 2004, the Security Council voted to undertake sanctions against Sudan's oil industry if Khartoum did not rein in the *Janjawid* (devil on horseback, or armed gunmen) militia in Darfur, but China quickly announced that it would veto any such efforts.³⁸

Contrary to most analysis, China's energy investments overseas (such as those in Sudan) do not provide it with any guarantee of energy security and are mostly used to obtain foreign currency. Often, too little oil is produced too slowly to offset China's rapidly growing needs, and most of the oil does not reach China at all. Transportation costs are often so high that the oil is either sold or swapped for other oil that will also enter China.³⁹

Somewhat ironically, China's dealings with controversial regimes, such as the one led by Sudan's Omar al-Bashir, actually create additional supplies, thereby reducing pressure on the international market. These international transactions also help to provide China with the foreign currency it needs to import crude oil and other energy needs. However, much of the oil and other energy resources that enter China are not even on Chinese ships.⁴⁰ This clearly contradicts the perception that China's supply lines are fatally vulnerable to naval interdiction. A naval blockade would be an im-

possible task unless the blockading party was willing to disrupt the entire global economy and risk strong retaliatory action from the international community as well as from the Chinese.

In 2008, Iran was China's third largest foreign oil supplier, and its relationship with China in political, economic, and military arenas has evolved considerably. On October 28, 2004, China signed an agreement with Iran worth between \$70 billion and \$100 billion to develop Iran's massive Yadavaran natural gas field, and Beijing agreed to buy 250 million tons of liquefied natural gas from Iran over 25 years.⁴¹ Beijing is also keen to construct a 386-kilometer pipeline from Iran to the northern Caspian Sea which would connect with the Kazakhstan-Xinjiang pipeline and bring more oil from the Middle East to China. This would reduce China's reliance on shipped oil and provide major strategic benefits.⁴²

Chinese energy analysts view the possibility, real or perceived, that Persian Gulf oil-producing states may reduce supplies to China or even cut them off entirely as very serious.⁴³ China's lack of substantial strategic reserves (in 2008 it was 30 days versus Japan's 161-day reserve) increases its sense of vulnerability.⁴⁴ If China is to safeguard its oil and economic interests, it must work with Gulf exporters to establish long-term mutual dependence on downstream and upstream industries.⁴⁵ The purpose of this relationship would be for China to purchase the region's petroleum, while encouraging Gulf exporters to acquire shares of the growing Asian energy market through their own investments in refining. The Gulf is also becoming an important destination for investment in China's own energy industry as it actively seeks business overseas, with the oil economy as the key link to the growing

trade between the two regions. Further, the Gulf is a potential market for Chinese commodities as well as an entry point for exporting goods to the greater Middle East and East Africa. Although U.S. resistance is likely, a platform of common interests is equally likely to emerge between a China which seeks to maintain strong economic growth and a Gulf which is pursuing economic diversification in its energy exports.⁴⁶ In addition, there is a tacit assumption in these regions that Chinese economic involvement does not come with strings attached, and that Beijing will revisit criticisms from Western nations as well as some regional neighbors to abandon this practice.

This *realpolitik* in conducting business and furthering economic interests has served China well for the most part, possibly providing it with a competitive advantage over the industrialized democracies which are also competing for resources controlled by ostracized regimes. Nonetheless, as China's military and diplomatic clout continues to grow, this country will eventually have to modify its approach if it intends to be accepted as a responsible actor by the West, an acceptance which China appears to seek. Further, unlike that of the United States, China's increased economic presence in the Middle East has not coincided with a more robust military presence. This has won Beijing supporters in this typically inward-looking region which is grappling with the pressures of modernization, while also trying to accommodate foreign influence without diluting indigenous cultures and identity. However, if China decides to follow the flawed logic which declares that an increased military presence would lead to a corresponding increase in its energy security, China could risk its reputation of being a useful neutral player in the region.

As the year 2010 dawned, Kazakhstan was already vital to China's energy security, and Beijing is busy purchasing Kazakh oilfields and companies. If there were a threat to the flow of oil to China, the doctrine of active defense⁴⁷ could justify the PLA's launching of a preemptive strike against threatening targets in the hope of ensuring the security of the state and its assets. The PLA is currently mechanizing much of its army and is developing at least two powerful armor mechanized corps modeled after the 1980s Soviet Operational Maneuver Groups which are designed for breakthroughs and deep exploitation roles in an offensive operation. The force is too heavy for amphibious landings or operations in China's tropical areas; thus Martin Andrew surmises that the corps is designed to ensure Chinese energy security. He believes that this force, though it would use Xinjiang as its springboard, would aim to overrun the defenses of any Central Asian state to secure relevant oilfields.⁴⁸

The PLA has already stated that it is ready to "forge a strong military force powerful enough to take on important missions on the basis of China's economic development."⁴⁹ Nonetheless, much of Kazakhstan's oil, especially supplies from the giant Kashagan oilfield, still goes west and onto European markets as a result of the Soviet-era pipeline infrastructure.⁵⁰ These armored mechanized corps are thus more likely to be used for deterrence rather than for conducting operations. Overtly violating the sovereignty of a Central Asian neighbor with ground forces might prompt a series of counter-reactions which could fairly easily lead to a further destabilization of western China (especially Xinjiang), something Beijing cannot afford. The East Turkestan Islamic Movement (ETIM) has an extensive infrastructure in Central Asia, serving as a sensitive point of friction, and was a major driving

force behind the formation of the Shanghai Cooperation Organization (SCO). Any cross-border raids, regardless of the motivation, would greatly undermine regional counterterrorist cooperation.

Moreover, China's main partner for military exercises in Central Asia, held under the auspices of SCO, is Russia, which is a potential partner in the event that China does deploy into the region. Russia has more to offer than war games experience; it is an underutilized energy partner as well. Rosito Dellios has noted the "anomaly that Russia as the world's leading producer of crude oil and the second largest exporter, after Saudi Arabia, ranked [in 2008] only as the fifth largest supplier of China's crude oil imports," and that it "would be easier for China to defend the security of energy supplies from Russia through Eurasia than to protect sea lines of communication (SLOCs) from the Middle East and Africa, where most of China's oil imports originate."⁵¹ Chinese energy analysts also believe that it is wise to develop a stronger relationship with Russia in the field of energy, especially given that many of Russia's reserves are in Siberia and the Far East region near China's urban centers where demand is the heaviest. They believe that this enhanced relationship will also provide Russia with a strategic benefit in that the increased revenue from China will help Russia to deal with its major economic and social issues.⁵²

Russia has begun to use oil and natural gas as political weapons. For example, Ukraine depends on Russia for approximately two-thirds of its natural gas, and Russia has traditionally provided gas at a discounted price to former Soviet republics such as Belarus and Armenia. Ukraine also received discounted natural gas until the 2004 Orange Revolution brought a pro-Western government to Kiev. The Russians cut

off natural gas to Ukraine for a short period in January 2006 and for 3 weeks in 2009. Apart from putting Ukraine in a desperate position, the cutoff immediately menaced the rest of Europe, as most of its gas flows through Ukraine. Moscow achieved several goals by doing this: first, it pressured Ukraine directly; second, it forced many European states to deal with Moscow on their own rather than through the European Union (EU); third, it created a situation in which European countries had to choose between supporting Ukraine or receiving a gas supply.⁵³

Oil prices below \$70 led to budget deficits for Russia. In 2009, with the decline of the ruble and stock market plus rising unemployment, the potential for social unrest and discontent was high despite Putin's approval rating remaining above 80 percent.⁵⁴ Still, the global economic crisis has caused some to conclude that Russia has little choice but to abandon its international assertiveness in favor of re-engaging the West and diversifying its energy-dependent economy. Russia seems to understand that the only way to reverse the trend of its declining power and internal malaise is through exploiting the comparative advantage of Russia's energy resources. The Kremlin feels that building up the capacity to shape the global energy markets is a necessity rather than merely an option.

However, if Russia is to become an energy superpower, it needs Western investment and expertise to develop its lucrative energy fields, such as *Shtokman*, and build diverse transportation networks through northern and southern pipelines. Also, given the world's development trends, Russia has a generation at most to catch up with its powerful neighbors in economic, military, and social terms. The global financial crisis dealt a major setback to Russia's plans, greatly

diminishing Gasprom's market value while Exxon-Mobil did not fare nearly as badly. Further, Gasprom and Rosneft have become heavily indebted to foreign companies and have to borrow again for debt restructuring purposes.⁵⁵ Both companies borrowed \$25 billion from China in exchange for oil supplies from East Siberia over a period of 20 years. Thus, creditor China may not be subject to borrower Russia's oil politics.⁵⁶

How Vulnerable is China to a Naval Blockade?

While many energy analysts believe that Russia and China are likely to develop a complementary relationship of energy producer and consumer, the same cannot be said for the United States and China. Many analysts feel that the trajectories of the world's two largest energy consumers will inevitably lead to a clash over resources in the future. Energy security is now beginning to play an increasingly important role in Sino-U.S. relations and has intensified friction on several regional issues.⁵⁷ Beijing believes that its dependence on the United States to secure its sea lanes potentially threatens its energy security, since 80 percent of its imported oil comes through the Malacca Straits. Hu Jintao has expressed extreme concern over this vulnerability of China's oil supplies because the PRC would face quite a dire predicament in the event of an incident resulting in blockage of the Strait.⁵⁸

The biggest issue between the United States and China is Taiwan, an issue that China views as a life-or-death threat. The former Bush administration caused concern in China in pushing Japan to rearm and in warning Beijing that the use of U.S. military force against China in a conflict over Taiwan was a real possibility.⁵⁹ If a conflict were to occur, many feel that the

United States and Japan could move to cut off China's overseas oil lifeline, inflicting a huge blow to Beijing and making a wider war over energy more likely.⁶⁰

Chinese security analysts are also concerned over piracy and terrorism in the Malacca Strait, with China holding discussions with Indonesia, Malaysia, and Singapore regarding cooperation to maintain security in the Strait. Indonesia and Malaysia have been hesitant to grant a significant role to any outside power although options for cooperation that do not depend on infringements of their sovereignty are being explored. If the PLA seeks to enhance the security of the Malacca Strait, it will have to build up its power-projection capabilities to reach the area. Aircraft carriers and long-range aircraft are being developed, and China is also supposedly seeking bases in friendly countries along the sea lines of communication connecting it to oil sources in the Persian Gulf.⁶¹ Further, as noted earlier, in recent years the PLA has reorganized the army so as to secure energy supplies under the doctrine of active defense. This armored heavy corps could become China's new strategic weapon. But irresponsible use of any of these new capabilities will set off alarm bells without actually enhancing China's energy security. Rather, these capabilities should, according to PLA doctrine, be used to prepare for regional combat scenarios or local wars and for deterrence purposes.⁶² Even if a pipeline is secured by military force, it is not worth much if the host nation shuts off the energy-providing resources running through it.

The U.S. Navy seems to believe that it has the ability to enforce an ironclad blockade with near impunity and is now operating in the Malacca Strait, as well as other strategic choke points such as the Straits of Hormuz. It also controls the entire oil delivery route from

the Middle East to Asia which supposedly allows it to quickly cut off China's supplies. Some senior U.S. naval combatant commanders do not feel that a blockade against China would cause a great deal of collateral damage to U.S. allies in Northeast Asia such as Japan and South Korea, and they believe that the United States could impose a blockade against oil tankers bound for China without constricting oil bound for U.S. allies along the Pacific Rim. This ability has been proved previously, namely, during the enforcement of the oil embargo on Iraq. In response to these concerns, China has been able to set up coastal intelligence and military outposts in several countries located along strategic oil routes. However, U.S. experts still believe that they can cut the corridors if need be.⁶³

Though China could hypothetically be embargoed by the Organization of Petroleum Exporting Countries (OPEC) under pressure from Washington, the world market is now so seamless that oil supplies can be obtained from nonembargoed sources at the same price that everyone else pays. This is exactly what happened during the oil embargo declared by OPEC against the United States in 1973. Prices skyrocketed because of a large production cutback, but OPEC could not prevent nonembargoed nations from selling oil to the United States. Today, oil-producing nations in the Middle East have far less power vis-à-vis consumer nations than they did in the 1970s. Most simply cannot afford to stop selling oil on the international market without causing their own oil-export-dependent economies to collapse. Saudi Arabia (the world's largest exporter), for example, cannot stop pumping oil without shattering its already-fragile social contract with its population. The House of Saud has suffered some

2 decades of trade and budget deficits and, as a result, has accrued a debt equal to nearly 75 percent of Saudi Arabia's GDP.⁶⁴

Revenue from oil exports has dropped sharply in Saudi Arabia in real dollar terms since the 1970s, with a surging youth population and high unemployment (14 percent or higher) rate resulting in a per capita income earnings drop from \$22,000 in the late 1970s to about \$4,500 in 2010 (in constant 2004 U.S. dollars). As its social welfare system shows signs of collapse, Riyadh needs customers as much as consumers need Saudi oil. While China depends on Middle Eastern oil diplomacy, the dependencies are mutual. It can thus be said that the global integrated marketplace is a soft cushion against embargo pressures. Although any production cutbacks accompanying an oil embargo would raise world prices for everyone, "it is the price mechanism, not physical mechanisms—that would ration the allocation of oil."⁶⁵ China's exposure to oil price shocks caused by supply disruptions is similar to America's exposure. The same shocks were also felt in nations that import all of their oil, like Japan, and nations that produce more oil than they need, such as Britain (whose self-sufficiency in oil could not shield British consumers from the sudden spike in gasoline prices in the summer of 2000). In the global oil market where supply is concerned, it does not matter whether a nation produces its energy domestically or buys from abroad.⁶⁶

The United States cannot enforce a naval blockade that would meaningfully starve China of energy resources; if it attempted to do so and failed, it would damage the U.S. Navy's prestige (and that of the rest of the military) and would obviously have negative implications for U.S. diplomacy along with its global

standing. It would be impossible to know which ships to focus on for the blockade, since a wide variety of flags deliver China's energy resources. This blockade would inevitably harm the energy security of U.S. allies while also severely disrupting the global economy. Further, China is steadily reducing its dependence on sea transportation and, in the process, rendering its own navy even more nugatory. Both China and the United States would be better served by concentrating on sound economics and management/distribution practices rather than dedicating substantial weapon resources towards a scenario that is highly unlikely to occur.

A More Realistic Assessment of the PLAN's Future Roles.

Throughout China's history, its strategic orientation has been continental, and its strategic tradition—its way of thinking about and forming strategic issues—has been largely focused on land war. However, today the risk of cross-border aggression has lessened distinctly, and the threat of invasion—the primary worry of Chinese strategists for centuries—has nearly disappeared. This does not suggest that China has totally abandoned its land warfare strategic traditions. In fact, the PRC's maritime strategic outlook is part of the continental tradition of using maritime power in a defensive strategic context which, in the PRC's case, means protecting offshore sovereign interests and denying other nations the use of the high seas as an avenue for attacking China.⁶⁷ Nonetheless, several official Chinese documents have stressed the need to engage in a gradual extension of the PLAN's strategic depth.⁶⁸

China's emergence as a major trading power has brought heavy dependences upon sea lines of communication (SLOCs). The strong growth of the Chinese economy (averaging roughly 9 percent annual growth since the 1970s) despite the global recession of 2008 has been driven by exports dependent on the import of components and raw materials. Disruption of trade will not only degrade China's economic security, but also the stability of the current regime, which draws much of its legitimacy from continued economic growth. However, since the PLAN lacks the capabilities needed to protect Chinese shipping in the East Asian SLOCs, especially in the southern regions of the South China Sea and the Southeast Asian Straits, China relies on the United States to ensure freedom of the seas and the security of sea lanes. According to most Chinese strategists, this reliance leaves China vulnerable in the event of hostilities. PLA planners are thus actively seeking to enhance China's military capabilities so that the Chinese themselves can protect the sea lanes that are used by Chinese shipping.⁶⁹

A major driver of PLAN development is the more robust strategic ambition developed by PLA strategists. The major strategic crunch point is reached when China's most important interests are either threatened or unresolved, either domestically or internationally. Over the past 15 years or so, CCP leaders and diplomats have done much to advance the national interest of stability in China's immediate neighborhood by securing the PRC's land frontiers through the resolution or mitigation of territorial disputes with Russia, Vietnam, Kazakhstan, Kyrgyzstan, and India. China has also negotiated strategic partnerships with these countries and, as is the case of most of Central Asia and Russia, has pulled them into the regional security

relationship formed by the SCO. Fortunately, China does not face a credible military threat from its continental neighbors in the near-to-medium future.

While its land frontiers are stable for the most part, China's maritime approaches are plagued by sovereignty disputes and acute vulnerabilities. This situation is not new to China and has, in fact, been an issue for Beijing since at least 1842, when the Treaty of Nanking ended the first Opium War. This was a 3-year conflict between China and Great Britain which exposed the military weaknesses of Imperial China and introduced the so-called Century of Humiliation. Following this, the repeated military and diplomatic humiliations and defeats that China suffered from Western powers and Japan mainly came from the sea. The difference today is that the PRC has the necessary resources and political coherence to address the reality that the vast majority of China's outstanding sovereignty issues and unresolved strategic problems are maritime in nature. These problems include:

- Taiwan. The combination of Taiwan's air defense and the threat of intervention by the United States military (primarily the U.S. Navy) effectively keeps the Strait a Taiwanese moat rather than an expeditionary highway for the PLA.
- East coast. Possibly as strategically significant as Taiwan, the status of the east coast as the PRC's economic center of gravity has emerged as a geostrategic reality. Because it is a "sea-board," it is extremely vulnerable to attack from blue water – a military task the United States is uniquely suited to execute.
- East China Sea. Territorial disputes with Japan over island and seabed resources in the East

China Sea have become more serious, representing a potential flashpoint where Sino-Japanese interests are contested. Each state stakes its claims by the periodic deployment of naval and coast guard vessels.

- Spratly Islands. Unsettled territorial disputes, and their concomitant resource issues, remain with respect to the Spratly Islands and the South China Sea, with Vietnam a notable disputant.
- Maritime trade. China's entire national strategy of reform and opening depends largely upon maritime commerce (trade). The Chinese economy is driven by the combination of exports and imports which together account for almost 75 percent of GDP, with most of this trade dependent upon sea routes.⁷⁰

Instead of attempting to establish absolute security for Chinese energy supplies in far-flung regions such as the Middle East, the PLAN has scaled its approach to these types of regional issues in a more realistic and discriminating manner. In this regard, the PLAN will hope for the best while planning for the worst, but combat preparations will assume a distinct focus on asymmetric warfare, since its capabilities lag far behind those of the United States and Japan. The aim is not to hand a punishing conventional defeat to an adversary, but rather to raise the stakes in a conflict to an unacceptable level and prompt an opponent to either scale down hostilities or avoid them entirely – the latter being a more desirable option to the Chinese. Chinese concepts of asymmetric warfare and deterrence differ greatly from those of the West; Beijing views asymmetric warfare as an activity extending well be-

yond the military realm to include a wide range of economic and political coercive techniques which can be used to pressure adversaries.

By 2009, the PLAN had developed into a force capable of more multi-pronged missions which could be carried out over long distances. While two destroyers and a supply ship made their way to the Gulf of Aden on an anti-piracy mission, the Ministry of National Defense (MND) clearly stated it is China's right to build aircraft carriers. Some of these developments have occurred against a backdrop of global recession and the perception that the CCP leadership has been too preoccupied with its multibillion dollar effort to stimulate the economy and generate employment. These factors clearly demonstrate China's unwavering commitment to naval modernization.⁷¹

This trend has led many to conclude that the development of an aircraft carrier is directly linked to the PLAN's eventual maiden excursion into the Middle East, and that China will seek to challenge U.S. influence in the region by using the same methodology to gain a preeminent position that Washington employs—that is, a demonstration of military force and ability to provide a security umbrella for the region. Given the fact that less and less of China's energy needs will travel by sea and that there are more pressing issues closer to home, these potential aircraft carriers need to be viewed within a regional context.

Chinese Views on Maritime Security.

As conclusively taught to us by Alfred Thayer Mahan in the 19th century, sea power has played a major role in the fate of nations throughout history, and China is no exception. Many Chinese analysts believe that

the country's descent into a divided, colonized state was due to its lack of naval power. They point to the Opium Wars in 1840 and 1854, as well as the Sino-Japanese War of 1895, as examples of China's crucial defeats at sea which, they say, ultimately led to its failure as a state. They also believe that the Taiwan issue has still not been resolved because of China's insufficient sea power.⁷² It should thus not be surprising that PRC leaders have also come to believe that the strategic interests of China can be secured only through a robust naval force, which view is a major departure from the dominant strategic traditions of China.⁷³

China's sea power is uniquely defined. A traditional Western notion of sea power is directed at the ability to control the oceans while China's concept of sea power entails a marriage of sea power and equal sea rights. In a fundamentally anarchic international political system, sea rights are often exercised through sea power.⁷⁴ The United States is viewed by many Chinese analysts as the most important external force impacting China's maritime security interests.⁷⁵ This will further drive the PLAN's focus on asymmetric tactics in the region, specifically on anti-access strategies which aim to make involvement in a local conflict too costly for Washington both domestically and internationally. Large weapon platforms, such as aircraft carriers, will serve as a deterrent and as weapons of last resort in view of their vulnerability to superior U.S. military power.

The PLAN's notion of offshore defense is based on the former Soviet Union's maritime strategy. The Soviets developed a defensive maritime strategy with spaced, roughly parallel sea lines of defense (so called "thresholds") at varying distances from the USSR's coasts, with each line defended by weapons systems

and tactical schemes appropriate to its location. This largely linear, ground combat approach (“layered defense”) to thinking about maritime defense was used to rationalize the operational capabilities Soviet naval and air forces required to deny the United States, its primary threat, the use of the sea. However, the difference between the Soviet and PRC approaches is that the PLA—according to U.S. Department of Defense annual reports to Congress on China’s military power, which cite 1980s PLA theory⁷⁶—decided to define distance-related thresholds in terms of “island chains.” The similarities between the Soviet and PLA approaches to coastal defense are likely to derive from continental strategic culture and Soviet mentorship. In either case, however, the tactic represents a rational approach to the operational problem of defending against forces which attack via the sea.

The primary requirement for China’s layered sea-defense method is an effective surveillance system. Finding and locating ships on the high seas is problematic given the vastness of the oceans and difficulty in determining the location of a ship at any particular point in time as it is moving through the waters. A surveillance system must be able to distinguish between civilian ships, such as oil tankers or merchant vessels, and warships. Without effective surveillance, it is impossible to position offensive weapons systems or intercept moving naval forces. For example, the Soviets built a surveillance system comprised of radio direction-finding, electronic “spy ships” sensitive to electronic signals, and space-based satellites designed to detect either electronic or infrared emissions from ships. Here it should be noted that surveillance satellites are in relatively low orbits around earth, passing overhead relatively quickly. Further, the second ele-

ment in the USSR's layered defense system was land-based long-range aircraft which could be employed en masse to fire long-range cruise missiles. The Soviet tactic was to send aerial raids of two regiments (roughly 46 aircraft) against each enemy battle group to ensure that their bombers would survive the defensive screen and get within the appropriate range to launch ship-killing cruise missiles. This tactical threat prompted the U.S. Navy to develop the *Aegis* radar-based air defense system, specifically built to enable missile defense ships to shoot down such barrages of cruise missiles. At present, however, China does not possess many of the same capabilities of the former Soviet Union, namely, aircraft capable of carrying long-range cruise missiles.⁷⁷

The third aspect of the Soviet's layered strategy was the use of submarines which were given directions to their targets in much the same way that German U-boats were dispatched towards transiting convoys: they were vectored by commands from shore, based on surveillance information. The Soviet variant of this practice was to intercept carrier battle groups through the use of nuclear-powered submarines equipped with large magazines of cruise missiles. The PLAN has adopted this approach but focused on more modern, high-performance, conventionally propelled submarines which are difficult to defeat. However, because conventionally-powered submarines do not have sustained endurance, they depend more on accurate surveillance to help them locate targetable ships. This overall operational template is a classic response of a continental strategic culture more interested in defending itself from sea-based attacks than using the ocean as a highway to attack another nation.⁷⁸

The PLAN seems to view its submarine force as the most important element in its layered defense given

the difficulty involved in locating the very quiet modern submarines. Between 1995 and 2005, the PLAN commissioned 31 new submarines, though only two were nuclear-powered. However, this is still an imposing force likely to improve as it adds more nuclear-powered subs. Operationally, submarines may have to be stationed up to 750 nautical miles from the PRC coast for effective sea denial, enabling them to locate and attack enemy carrier forces before the carrier becomes involved in numbers in an air battle over the Taiwan Strait. If the PLAN intends to delay the U.S. Navy or deter it from advancing towards Taiwan, the PLAN would need to mass submarines in large numbers once carrier forces have been located so as to raise the risk for U.S. surface ships to the point where commanders may decide to remain outside of the denial area until it is clear of PLAN submarines. This deterrent could require as many as six or more submarines per approaching carrier strike group. Assuming that three to four U.S. carriers were mobilized to respond to an attack against Taiwan, the PLAN would need at least 18 to 24 submarines on station. The ability to sustain that posture would depend on how long it would take to transit between homeport and the patrol station. In such a scenario, a total of roughly 60 modern submarines would be needed.⁷⁹ At present, the PLAN lacks the resources to mobilize that many submarines at once and dispatch them to a single conflict theater without causing other aspects of its maritime security to suffer.

The PRC may seek to take advantage of the open ocean so as to enhance the survivability of its nuclear deterrent against the United States and possibly circumvent U.S. missile defense by launching intercontinental ballistic missiles (ICBMs) from submarines

along azimuths outside of the engagement zones of antiballistic missile (ABM) systems. If the PLA took this course of action with ballistic missile submarines (SSBNs), it would need to make certain that its SSBN force was so quiet it could not be tracked or discovered by U.S. attack submarines. Russian advisors to the PLAN have possibly discussed Cold War vulnerability issues related to the USSR's own SSBN force. These issues were so serious for Moscow that it had to cluster its SSBNs in heavily protected maritime enclaves (bastions) to ensure that its boats survived in case of a war with the United States. Unless PLAN SSBNs can operate undetected by U.S. forces, they would be vulnerable on the high seas and would become a resource black hole if the PLA had to create a Soviet-like "bastion" defense to protect them. A more likely scenario is the PLAN's arming its nuclear attack submarines with nuclear-tipped cruise missiles and making these multimission submarines employable in a wide range of operational tasks, thus providing a hedge in support of China's avowed "nuclear counterattack" doctrine.⁸⁰

The PLAN is likely to conduct distant peacetime presence operations and will use ships with modest expeditionary capabilities. The current trend in Asia as well as Europe is to buy or manufacture 12,000 to 17,000 ton multipurpose amphibious (or "expeditionary") ships capable of carrying a few hundred soldiers or marines, several helicopters, and good medical facilities, as well as the wherewithal to establish effective command, control, and communication centers. These types of ships are useful in missions such as humanitarian relief, disaster relief, and population evacuations, as well as purely military operational undertakings. Further, the PLAN plans to learn how

to deploy and sustain surface combatants, amphibious ships, and support ships on distant stations for long periods of time.⁸¹ Any Chinese involvement in humanitarian operations, such as peacekeeping, is likely to occur only in areas where China has a major strategic interest. This approach differs from that of the other developing nations which regularly contribute troops to U.N. peacekeeping missions in areas of global concern.

Burma is currently the object of a veritable economic invasion by China which has strong political and military components. Barring the overthrow of the well-established Burmese military dictatorship, this trend is likely to continue in spite of Indian attempts to establish a contravening influence in the country. In the future, Burma may host PLAN support facilities, if not outright bases, on Burma's coast and islands. Such facilities, if similar to the Chinese-modernized port of Gwadar in Pakistan, could provide the PLAN with the logistic infrastructure needed to conduct extended operations in the Indian Ocean and North Arabian Sea. However, it should be noted that the Indian Navy is a formidable force and will continue to modernize and expand. Pakistan and Burma on India's periphery are after all two of the world's most unstable nations. Further, despite its increasing energy needs (which includes a heavy dependence on foreign sources), China presently relies on seaborne imports for only 10 percent of its total energy needs. As noted earlier, this percentage is likely to decline rather than increase over the next decade or so as Beijing moves to invest more heavily in oil pipelines and alternative, nonfossil energy sources.⁸² In another arena, analysts tend to overlook the capabilities of Japan and the growing public demand for Tokyo to assume a role in inter-

national security that is commensurate with its economic status. As Japan reasserts its national identity, anti-Chinese sentiments are beginning to run high, and Tokyo will not sit quietly while China comes to dominate East Asia's waterways. It is often forgotten that Japan's naval capabilities far exceed China's, the country has an advanced missile defense system, and is a "screwdriver" nuclear power—meaning Japan could develop a nuclear weapon and a delivery system very quickly given its advanced technological and industrial base and its large stores of enriched nuclear fuel.

Recent PLAN Developments.

During times of peace, the PLAN operates under a leadership system which combines operational command with navy building and administration, and which consists of naval headquarters, fleets, test bases, educational institutions, and an armaments division. There are three fleets under the PLAN, namely the Beihai (North Sea) Fleet (based in Qingdao in Shandong Province), Donghai (East Sea) Fleet (Ningbo of Zhejiang Province), and Nanhai (South Sea) Fleet (Zhanjiang in Guangdong Province). Each fleet has command fleet aviation, support bases, flotillas, maritime garrison commands, aviation divisions, and maritime brigades. The PLAN presently has eight educational institutions: Naval Command College, Naval Engineering University, Naval Aeronautical Engineering College, Dalian Naval Academy, Naval Submarine College, Naval Arms Command College, Naval Flying College, and the Bengbu Naval School for Non-Commissioned Officers.⁸³ One of the reasons that the PLAN has been able to secure so many opera-

tional and training resources is that it has provided a compelling strategic rationale for navy building which fits comfortably within a decisionmaking framework dominated by a continental and ground-force oriented strategic culture.⁸⁴

China built its first nuclear-powered attack SSN in 1980 with the *Han*-class boats. These were largely built along the lines of the 1950s vintage Soviet-designed *November*-class SSN. They tend to be “noisy” and have experienced significant maintenance problems; it is believed that as few as three *Han*-class remain operational. China is presently building and deploying a new class of SSN, the Type-093 or *Shang*-class. Two are already operational while at least one more is under construction. They bear a strong resemblance to the 1980s era, Soviet-designed *Victor III*-class SSN, though they are more modernized. This similarity almost certainly is the result of Russian assistance in China’s construction of these new generation SSNs.⁸⁵

The PLAN’s force is equipped with nuclear-powered, strategic missile submarines as well as conventional submarines, which are organized into submarine bases or submarine flotillas. The PLAN’s surface-ship force primarily consists of destroyers, frigates, missile boats, mine sweepers, landing ships, and service ships. It is organized into flotillas of destroyers, speedboats, landing ships, and combat support ships, as well as maritime garrison commands. The PLAN’s aviation wing consists of fighters, fighter-bombers, bombers, reconnaissance aircraft, patrol aircraft, and helicopters, all organized into aviation divisions. The marine corps is broken down into marine brigades which consist of marines, amphibious armored troops, artillery troops, engineers, and amphibious reconnaissance troops, while the coastal defense force is organized

into coastal missile regiments and anti-aircraft artillery regiments, and mainly consists of shore-to-ship missiles, anti-aircraft artillery, and coastal artillery troops.⁸⁶

The PLAN has developed the ability to use ballistic missiles to attack moving surface warships. Traditionally, ballistic missiles were considered a poor weapon to use against ships at sea, since ships are fast and mobile, while once a missile is fired the endpoint of a ballistic trajectory could not be altered to account for target movement. However, the PLA is trying to place seekers in high-explosive missile warheads which will activate as the warhead descends into the target's area and then steer the warhead straight to the moving ship. This difficult technological task depends on accurate surveillance and missile warhead maneuvering technology which has the ability to slow down the warhead when it re-enters the atmosphere so its seekers are not incinerated by the heat of re-entry.⁸⁷ The PLAN has never been able to deploy a nuclear-powered submarine armed with ICBMs carrying nuclear warheads. The *Xia*-class fleet ballistic missile submarine was built in 1987, but never regularly patrolled, possibly due to engineering problems.⁸⁸ Given these technological shortcomings, the PLAN is likely to place the greatest emphasis on its undersea assets, namely, its submarines. These can serve as vital "unknowns" in regional and local conflict scenarios and play a critical role in deterrence, especially against the United States. If employed correctly and used in an asymmetric, tactically-effective manner, mid-tech submarines and sea mines could either deter stronger forces, such as those of the United States and/or Japan, or inflict a degree of pain exceeding the pain thresholds of their respective constituencies. It is incorrect to as-

sume that PLA strategists and senior CCP leaders are prioritizing the development of high-tech capabilities over mid- and low-tech. Although any navy would be keen to develop these types of advanced capabilities, given financial and resource limitations, the PLAN must prioritize programs which will prove most useful based on the most likely combat scenarios. In the present case, the most likely scenario is local war over Taiwan or over sea-based resources of which Beijing claims ownership and will seek to secure through anti-access strategies and other asymmetric tactics.

Two ship classes have bridged the gap between the 20th and 21st centuries for the PLAN. China continues to modify the *Jiangwei*-class frigates, of which three subclasses now exist. The second class *Jiangwei II*, which featured a Chinese-built copy of the original *Jiangwei*'s French-built AAW missile system, was unsuccessful. However, the *Jiangwei III*, of which at least one is in commission, seems to differ from its earlier models mainly in its improved command and control capabilities. The other cross-century combatant is the *Sovermennyy*-class destroyer, four of which China purchased from Russia. The 8,000-ton displacement ship was designed by the USSR specifically to target U.S. aircraft carriers with its long-range, heavy-warhead Sunburn anti-ship cruise missile. However, these ships have only marginal antisubmarine warfare (ASW) and antiair warfare (AAW) capabilities, and the *Sovermennyy*'s steam plants have a problematic history. This being the case, the PLAN will be forced to use these ships conservatively to avoid exposing their vulnerabilities to air attacks.⁸⁹

China has already launched three new classes of destroyers and a new class of frigate, and they all maintain the PLAN's emphasis on developing very

capable antiship cruise missile batteries and are armed with the most advanced AAW system yet put to sea by China, though they are still equipped with problematic ASW systems. Further, the *Luyang I*, *Luyang II*, and *Luzhou*-class destroyers are all gas turbine-powered ships designed with some stealth characteristics and intended to provide the PLAN with AAW defense-capable ships for the first time. The *Luyang II* is the most interesting in that it is equipped with an antenna array characteristic of the U.S.-designed *Aegis* AAW system. In addition, the PLAN's frigate force is now driven by the diesel-powered *Jiangkai*-class, three of which have been commissioned. The ship appears to be a larger version (with a 3,500-ton displacement) of the *Jiangwei*-class, with the primary difference being a hull and superstructure design exhibiting stealth characteristics. Actually, with its sleek rounded surfaces and reported radar-absorbent coatings, the *Jiangkai* resembles the French-designed *Lafayette*-class frigates that are operated by Taiwan's Navy.⁹⁰

In 2005, China built and commissioned two new *Fuchi*-class replenishment-at-sea (RAS) ships, each displacing 28,000 tons and capable of supplying the fleet with fuel, ordnance, food, and other supplies. If Beijing uses these new RAS ships as replacements for smaller units, it will likely indicate a continued lack of blue-water ambition. However, as each of China's three naval fleets—North Sea, East Sea, and South Sea—grows to include two or more large RAS ships, the PLAN will be capable of more long-range deployments. This will also signal that Beijing has more ambitious intentions for its navy. In addition, in late 2006, a much larger amphibious ship, displacing between 18,000 and 25,000 tons, was launched that looks nearly identical to the U.S. *San Antonio*-class Landing

Platform Dock (LPD), offering the PLAN a platform capable of deploying at least four helicopters and four air-cushion landing craft and embarking at least 400 troops. This will be the first Chinese naval vessel capable of force projection as defined by Western navies.⁹¹ However, China is unlikely to use the capabilities in a manner similar to that of Western navies, since China's most pressing security concerns remain closer to home and the country lacks global security commitments or overseas interests which would justify such a robust international naval presence. Such a presence overseas could even threaten the "neutral" status which has served Beijing so well in international affairs in the past. Despite much fanfare regarding China's entrance onto the world stage (which many believe marks the beginning of a New World Order), these capabilities are specifically aimed at Taiwan and recovering what Beijing feels is lost territory, and finally at bringing an end to the Century of Humiliation. In this quest, Beijing's primary audience consists of its own domestic civilian populace, among which nationalism is rising.

In November 2006, a PLAN *Song*-class submarine reportedly shadowed a U. S. carrier battle group and surfaced within five nautical miles of the carrier USS *Kitty Hawk*, demonstrating how difficult it can be to detect ultra-quiet diesel submarines. What the PLAN lacks in terms of carrier strike groups and main surface combatants is made up for by the considerable underwater capabilities which are further enhanced when employed in littoral water around Taiwan.⁹² This fact definitively shows that China will continue to pursue high-end technologies, but will also maintain an emphasis on lower- and middle-range assets which contribute the most to ambiguity and deterrence. This

also shows that PLA strategists objectively analyze their own capabilities as well as the capabilities of potential adversaries, enabling them to make sound strategic decisions regarding which capabilities to pursue with the most vigor. Based on these developments, it appears that these strategists have deemed it pointless and unnecessary to engage in a rapid modernization/arms race with U.S. forces in Asia, a fact which distinguishes them from their former Soviet counterparts.

The PLAN is also learning to be an instrument of statecraft. Having missile destroyers to patrol in the Chunxiao oil and gas field in the East China Sea in 2005 sent the message that China believed the area was within China's Exclusive Economic Zone (EEZ), emphasizing the seriousness of China's position. Further, having submarines patrol as far out as Guam, and later surface within five nautical miles of the USS *Kitty Hawk*, was clearly meant to serve notice to U.S. forces which were en route to intervene in a Taiwan contingency.⁹³ These events demonstrated more aggressive strategic thinking and operational planning in addition to a more advanced understanding of systems dynamics than previously shown. The PLAN has the world's most formidable force of conventionally-powered submarines (SS). The oldest component of this force consists of nearly 60 *Romeo*-class ships which are copies of an early-1950s Soviet design. The PLAN does not likely operate any more than a dozen of these submarines due to high maintenance costs and a lack of crew personnel. The 17 *Ming*-class ships began operational service in 1975. They are an updated version of the *Romeo*. Though more useful and cost effective than the *Romeo*, the *Ming* is only slightly more capable. China is already well into a large-scale construction program for its next-generation, conventionally-pow-

ered attack boat, the *Song*-class, at least 12 of which have been commissioned or are in production. The first of these exposed serious shortcomings in China's ability to design and construct advanced submarines. These problems have apparently been overcome, however, and the *Song* appears to be the PLAN's indigenously produced, conventionally-powered submarine of choice for at least the first 3 decades of the 21st century. Nonetheless, China is still unable to incorporate air-independent propulsion (AIP) in any of its conventionally-powered boats. However, it should be noted that this technology is not fully developed or proven effective yet, and Beijing may simply be waiting for further Russian or other foreign advancements in AIP engineering before purchasing the equipment.⁹⁴

It is clear that China's tactical undersea fleet will be the cornerstone upon which current and future naval ambitions will be built. Like the historic Great Wall, China's undersea wall of tactical submarines serves to protect the territorial unity and integrity of China—a China which in its view includes Taiwan as an unalienable part of its territory. Fundamental to this task will be the care of the PLAN's tactical submarine fleet, consisting of its recently acquired *Song*, *Yuan*, and *Kilo* classes. The Russian-built *Kilos* are armed with supersonic SS-N-27B sizzler anti-ship cruise missiles and wire-guided and wake-homing torpedoes. They can remain undetected as they seek to interdict enemy carrier battle groups.⁹⁵ These capabilities are clearly meant to make any opposing commander think twice before dispatching forces into the Taiwan Strait, especially the slow-moving, unwieldy aircraft carriers which are vulnerable to mines, torpedoes, and other related weapons. The fundamental goal of these acquisitions is, somewhat ironically, to obviate their use

in a combat scenario by convincing enemy military commanders and political leaders that the cost of intervention is too high.

It should be noted that the number of submarines in Asia is increasing, and the risk of major accidents is increasing proportionately. The number of submarines has increased by about 50 percent over the last few years, with China, India, Japan, and South Korea all having large fleets. In Southeast Asia, Indonesia has long had submarines, Singapore commissioned the RSS *Conqueror* in July 2000, and Malaysia quickly followed suit. The undersea environment of the region will be rather crowded in the future. This should not be surprising; submarines form a potent weapons system—they can fire torpedoes, launch missiles, lay mines, land covert parties, and conduct secretive surveillance and intelligence operations. Conventional diesel-powered submarines are well suited for special operations and intelligence work, particularly near shore and in relatively shallow waters, and can covertly monitor communications and other electronic emissions that might not be detectable from space.⁹⁶ It is easy to understand why the acquisition of these valuable machines in number is so tempting.

Over the last 20 years, China's shipbuilding industry has become the third-largest builder of commercial ships in the world. Nonetheless, shortcomings remain, and Chinese shipbuilders have experienced many problems in producing quality subsystems for merchant and naval vessels. They have had to rely heavily on foreign imports for power plants, navigation and sensor suites, and key weapons systems for the newest naval platforms. For instance, Chinese maritime engine factories have had difficulties producing gas turbine engines which are powerful enough for

large destroyers. As a result, the last two classes of Chinese destroyers have relied on imported gas turbine engines. Such a high degree of reliance on foreign subsystems creates serious challenges for systems integration and complicates serial production of some platforms because of the potential uncertainty about the availability of certain subsystems.⁹⁷ Furthermore, though there is little doubt that China is capable of building its own aircraft carrier, the question arises over its operational effect. No other program has come close to challenging U.S. dominance at sea. A U.S. carrier projects significant power due to its ability to sustain operations over long periods, resulting in multiple and continuous strikes on targets. This ability is not only the result of technological capability, but also of the training and practice of the ship's crew and pilots. A single Chinese carrier operating a handful of fighters may be able to intimidate smaller navies, but any reasonably competent regional air force would likely outclass Chinese naval aviation.⁹⁸

The greatest weakness of China's naval platforms has been their weapon systems. Chinese vessels have long lacked long-range air defense systems, modern antisubmarine warfare weapons, and advanced electronic warfare capabilities. For example, Chinese suppliers have experienced reported delays in the indigenous production of medium- and long-range SAM systems for area defense, with these delays holding back the completion of current naval projects. In short, Chinese shipbuilders have been able to produce better-designed and better-fabricated warships in less time than before, but these new platforms lack the advanced weapons, electronics, and propulsion systems needed to properly outfit these vessels. Technology (and its integration) will ultimately determine the

PLAN's military effectiveness.⁹⁹ Exploiting technology to the fullest will necessitate a multiyear effort involving starts and stops and the frustrating drudgery associated with research and development. In the meantime, given the regional challenges that China faces, it will have to rely on the technology it knows best: submarines.

Though progress is being made, PLAN aviation is the weakest branch. All fixed-wing aircraft are shore-based, including approximately 48 of the Su-30 fighter-attack aircraft that PRC has bought from Russia. The Su-30 is the PLAN's sole modern tactical aircraft, although the roughly 18 JH-7s and 120 J8-IIs are the results of indigenous attempts to produce a contemporary fighter. The PLAN's naval aviation force deploys Soviet-designed B-6 bombers capable of firing antiship cruise missiles (ASCM), its main tactical role, but the PLAN's patrol and ASW aviation force is relatively weak, with only about 24 H-5 and H-6 aircraft operating. It is the PLAAF that continues to provide China's primary air-to-air refueling and electronic warfare aircraft for maritime missions. The main strength of the PLAN is the helicopter fleet, consisting of about 60 aircraft (of either French or Russian design) which are deployed mostly onboard ships. China's new frigates and destroyers are capable of operating a futuristic piloted high-altitude/long-operation (halo) aircraft, which can serve as a broadband communications node, although only the four or so newest ships appear capable of employing the necessary digital linkage—a computer connection allowing for automated flight control.¹⁰⁰

PLAN Enters Somalia – The Beginning of a New Chapter?

In 2008, China alone sent 1,265 commercial ships through the piracy-prone Gulf of Aden, about three or four ships per day. Of the total Chinese ships passing through that year, an astonishing 20 percent were attacked, and two ships were hijacked.¹⁰¹ The purpose of China's deployment to the Gulf of Aden is officially to secure shipping lanes straddling the Indian Ocean and the Mediterranean as part of an international effort to sustain vital commerce in a critical corridor of global trade. However, some analysts have been drawing broader inferences, viewing the Gulf of Aden deployment in light of China's relative inactivity in the regional effort to combat piracy across the Pacific, in the Malacca Strait, the Mekong Delta, and elsewhere. They take note of largely unhighlighted links to the withdrawal of Ethiopian troops from Somalia (the first public statement of the naval deployment came during execution of a Chinese donation of a reported \$400 million to Uganda for peacekeeping operations in Somalia), the security of the Sudanese oil crescent, the latest Eritrean terror connection, and, most importantly, America's recent assessment that the Horn of Africa is a critical geostrategic venue in the post-September 11, 2001, world. China also views the Middle East as extremely unstable and seems to prefer to undertake its penetration by circumnavigation. Africa offers particularly favorable conditions for China to implement this strategy.¹⁰²

Though China claims that its naval mission off the coast of Somalia is Beijing's contribution to the global effort against piracy, the PLA's senior leadership is also using the mission to test the long-distance capa-

bility of China's nascent blue-water navy. The excursion helps China's best naval vessels adapt themselves to the climate, magnetic fields, and geopolitics of far-away waters and could also be a trial run for China's future aircraft carrier battle groups in terms of logistics, information gathering, information technology (IT) and warfare (IW), and related military interests. PLA experts have been reporting that naval shipbuilders are now constructing at least two salvage and repair ships (called flattops) for possible deployment after 2015.¹⁰³ In addition, the South Sea Fleet manned the expedition in the Gulf of Aden. This has raised some eyebrows, since this component of the PLAN is the most specialized in dealing with geostrategic deadlock and combat by virtue of its past and present orientations toward Vietnam, Cambodia, Taiwan, and, to a lesser extent, Malaysia and the Philippines. All of which bring China's maritime policy close to America's South China Sea position.¹⁰⁴ This could be interpreted as a form of discreet strategic signaling to other claimants to the Spratly Islands in the South China Sea through a demonstration of the long-distance and sustainable capabilities of this PLAN fleet. It is likely that China means to send the message that any foreign attempt to take any of the islands by force would be futile. Thus, on this reading, diplomacy on Beijing's terms is the only way forward.

The Somali piracy crisis creates the ideal platform for China's debut on the high seas, arguably giving Beijing every justification for easing back from its doctrine of nonintervention since Chinese lives and interests are at risk. The UN has sanctioned action in Somali waters, and even the Somali government has invited China to aid in resolving the piracy problem.¹⁰⁵ Further, China's dispatch of naval ships to Somali

waters brings to partial fruition the expansion of the PLAN from an offshore defensive force to a blue-water multipurpose navy.¹⁰⁶ However, even with blue-water capabilities, the PLAN will remain a regional force, since there is little it can do to defend China's energy security in other arenas.

Following the PLAN's deployment to the Gulf of Aden, various signs in the decisionmaking process and China's policy on maritime cooperation in East Asia indicate that the African mission is likely to spur new Chinese activism in maritime nontraditional security issues closer to home.¹⁰⁷ Nonetheless, it needs to be noted that China's decision to deploy naval vessels off the coast of Somalia has been closely coordinated with African and Western partners and was positively received by the United States, the North Atlantic Treaty Organization (NATO), and the EU. China also acted with considerable caution before the official decision was executed, reflecting China's concern that such naval action might be interpreted by other powers, namely, Middle Eastern states, as a heavy-handed sign of Chinese assertiveness.¹⁰⁸

Taiwan – PLAN's Most Likely Conflict Theater?

On its north-south axis, Taiwan is flanked by the East China Sea and the South China Sea, with its western coast only some 70-120 miles from China's coastal islands. It lies athwart the confluence of Pacific Ocean sea routes serving China and is thus denominated by such impressive appellations as the "key to the south-west coastal area of China" and "the fence to the seven provinces in the center of China."¹⁰⁹ The sea routes from the East China Sea to the South China Sea, from Northeast Asia to Southeast Asia, as well as the route

from the West Pacific to the Middle East, Europe, and Asia, all pass through this area. It is also the area where China can breach the chain of islands surrounding the country in the West Pacific and gain access to the vast area of the Pacific itself – a key strategic area and sea barrier for defense and offense. If Taiwan should remain severed from mainland sovereignty, Chinese strategists believe not only that its natural maritime system would lose its depth, but also that a large area of sea territory would fall into the hands of others.¹¹⁰ This assessment clearly suggests that in PLA strategic thought, Taiwan provides an indispensable element in the seaward defenses of mainland China, while an unfriendly Taiwan constrains China's access to the open ocean and could provide a base for attacks against the PRC.¹¹¹

PRC Policy and Strategy Towards Taiwan.

The official stance of PRC is that Taiwan has historically been and still is a part of PRC territory, and that its status is not negotiable. Although PRC accepts the current status quo, in 2005 PRC passed the Anti-Succession Law stating that PRC will use force against Taiwan if:

- Taiwan moves towards independence,
- Social chaos occurs on the island,
- Foreign countries intervene in Taiwanese affairs,
- Taipei refuses negotiations on reunification for a long period of time, or
- Taiwan develops nuclear weapons.¹¹²

Scholars have also advanced two additional conditions under which the PRC would likely use force against Taiwan:

- If Taiwan's military strength becomes significantly weaker than PRC, or
- If Taipei's suspected strategy of overturning CCP rule on the mainland through a peaceful evolution seems to be working.¹¹³

PRC policy has evolved significantly over time. Mao Zedong wanted merely to take the island by force, while Deng Xiaoping focused on a peaceful strategy which emphasized economic and cultural exchanges. Deng's successor, Jiang Zemin, made the Taiwan issue a matter of Chinese nationalism, pride, and resistance to the West, namely, U.S. influence.¹¹⁴ This mixture of economic incentives combined with the threat of military force has caused some to title current PRC policy as "military coercion with more flexibility and incentives."¹¹⁵ Although PRC policy has softened and become more adaptable, the essential message has remained the same: Taiwan is part of China and will eventually come under CCP leadership.¹¹⁶ Further, a goal of the CCP is to recover territories lost to the West and Japan during the Century of Humiliation and to continue to gain and maintain legitimacy as a ruling party.

Although all three parties involved claim that the political status quo is being maintained in the Taiwan Strait, it actually is not. Under CCP leadership, China's economy has seen impressive growth, improved infrastructure, and more recognition in the international arena. The system of one-party leadership is strengthening, developing, and gaining more credibility within China even though inequality and

income disparities are on the rise. The situation has not remained static in Taiwan either. Taiwan's democratization and economic development resulting from a market economy have improved its global image and won it sympathy abroad. In addition, with the collapse of the Soviet Union, the PRC is not nearly as valuable a potential ally of the United States, and Taiwan is no longer a "pawn in the U.S.-PRC power game."¹¹⁷ However, as a result of the Soviet collapse, the PRC is no longer preoccupied with the Soviet threat from the north and can concentrate its deployments to the south. Further, in the post-Cold War era, there has been a resurgence of nationalism, with the now-independent Baltic States gaining membership in the UN. As a result, some in Taiwan and within the Democratic People's Party (DPP) began to push for their own independence. As these two vastly different political and economic systems continue to develop, the likelihood of a peaceful reunification, or any reunification at all, is becoming less and less likely despite the recent positive statements made by both sides since Ma Ying-jeo's Kuomintang (KMT) came to power in March 2008. It is also important to note that Taiwan has not been under undisputed mainland leadership since 1895; it enjoys European-style living standards, and has the highest level of democratic freedom of any country with a Chinese majority.¹¹⁸ These luxuries will not be relinquished quietly. As the Taiwanese have witnessed the creeping CCP influence in the governmental affairs of Hong Kong, many Taiwanese likely view Beijing's offer of "one country-two systems" with suspicion.

Beijing has two main strategies in its approach to Taiwan. One is the "two-pronged strategy," demonstrated best during the 1995-96 Taiwan Strait Crisis.

It involves a pattern of military coercion followed by a peace offensive. The coercion depends on the threat of use of force, whereas the peace offensive focuses on cross-strait political negotiations as well as economic and cultural exchanges aimed to dissuade Taiwan from seeking independence. Because of the high political and economic costs of taking Taiwan by force, combined with the fact that the taking of the island would not be a guaranteed success, Beijing has mainly focused on the peace offensive while utilizing the threat of force very seldom.¹¹⁹

The second main strategy is to “wait-and-see.”¹²⁰ Despite PRC threats, in 2000 Chen Shui-bian was elected as President of Taiwan. During this period, the PRC was a candidate for entrance into the World Trade Organization (WTO) and a consequential entry to the overall global economic system. Accordingly, then-President Jiang Zemin decided that the PRC should not sacrifice its modernization effort on the altar of reunification as long as Taiwan did not formally declare independence. After Chen’s election, Beijing stated that, although it would never allow Taiwanese independence, it would cease making military threats, “dialogue” with the Chen administration, and it would keep the door open for negotiations. During these events, President Jiang introduced a PRC guideline proposing that China “carefully observe, patiently wait, avoid hurrying or haste, and keep up heavy pressure.”¹²¹ This tack was similar to the two-pronged strategy in its attempt to combine a credible threat of force with a peace offensive, all without actually starting a war that was neither wanted nor affordable for the PRC. One way in which Beijing maintained pressure was by attempting to form alliances with the anti-independence movement in order to form a

broad, united, anti-independence front. This method has continued into the present day, and several high-profile members of the KMT have even visited Beijing to sign agreements regarding economic cooperation.¹²²

Taiwan Policy and Strategy Towards PRC.

Although the KMT currently remains in power, Taiwan's policy toward interaction with PRC remains vaguely ad hoc and not nearly as definitive as the policy of PRC toward Taiwan. Following Shui-bian's election, Taiwan's policy became more focused on its individual identity and future rather than on its connection with the PRC.¹²³ It seems as though Taipei is reasonably content with the current status quo. Taipei seeks to maintain a balance of power with Beijing through its military buildup, close monitoring of the PLA modernization program, and reliance on "the protection of an effective UN or regional collective security system."¹²⁴ Further, Taiwan's arms purchases and development are for defensive use only; in building up an arsenal it is hoping only to raise the cost of an attack by Beijing to an unacceptable level.¹²⁵ Even so, Taiwan has laid out tentative conditions for reunification: if Taiwan were to accede to reunification, the PRC would have to renounce violence, treat Taiwan as an equal, and respect Taiwan's autonomy in international relations.¹²⁶ These criteria, although deemed reasonable by some, are in blatant contradiction to the PRC's one-country two- systems policy. Even though this policy rift remains, most analysts believe that dramatic moves are unlikely to be made by the Ying-jeo administration in the near future because they would not be supported by the United States. Further, even though the ability of the PLA to take the island is ques-

tionable, it could still use forceful measures against Taiwan which would unquestionably be destructive.

Attempts to forecast future Taiwan policy towards Beijing are very problematic. Certain factors, such as the desire to avoid a conflict which could damage infrastructure, development, or trade, will likely remain operative, while other variables, such as public sentiment and a reading of the PRC's intentions, could change dramatically. These changes could result from such moves by the PRC as aggressiveness in the South China Sea; provocative military exercises in the Taiwan Strait; or even a marked change of flavor in PRC administrations. By banking on the maintenance of the status quo, Taiwan arguably fails to increase the probability of an armed conflict.

U.S. Policy and Strategy.

Current U.S. policy is to maintain the status quo by officially recognizing the PRC as the one official China, while preserving Taiwan's autonomy until the PRC liberalizes and opens up enough to form a reunification deal acceptable to both sides.¹²⁷ However, the PRC does not seem to be abandoning adherence to socialism, one-party leadership, or other authoritarian features such as the closing of news media outlets, imprisonment of journalists (including a *New York Times* reporter), and maintenance of state-run enterprises and news networks. The top U.S. priority seems to be continuing with its commitment to defend Taiwan while, at the same time, ensuring that China continues to advance toward the status of upstanding member of the world's community of nations. The United States pushes a peaceful solution of the tensions by discouraging provocative moves by either side, and

promoting the continued adherence to the Taiwan Relations Act. This document states that U.S. diplomatic ties with the PRC depend on the peaceful resolution of the dispute, and that if any other means are employed, including boycotts or embargoes, the United States will provide Taiwan the support necessary for a sufficient self-defense capability. The Act also states that the United States may counter any use of force which threatens the security of the population or the social and economic systems of Taiwan.¹²⁸ This approach has led some to refer to it as “con-gagement,” stressing containment in security matters but engagement in economic matters.¹²⁹

No matter what view is taken, it is apparent that in the event of an attempted PRC invasion of Taiwan, Washington would provide some sort of aid, although how extensive the aid may be is debatable. A variety of reasons are given for Taiwan’s importance:

- Taiwan is a critical factor in the highly strategic relationship between the United States and the PRC.
- U.S. support for Taiwan is a vital factor for U.S. credibility in Asia.
- Possession of Taiwan would be a key increase in the geopolitical power of PRC.
- China’s relation to Taiwan is a critical indicator of whether China will be a cooperative partner or foe of the United States in the 21st century.
- Taiwan is a major U.S. trading partner and a primary source of investment for key U.S. foreign policy interests, including Southeast Asia, Latin America, Africa, and the Pacific Island states.
- Taiwan is a successful example of a transition from authoritarian rule to democracy, free enterprise, and capitalism.

- Taiwan is an approximate model of what the United States wants to see in the PRC—a democratic, market economy having friendly relations with the West.¹³⁰

Further, the Taiwanese and U.S. military are becoming increasingly integrated, with the United States selling Taiwan more advanced weapons, jointly developing terms and rules, and engaging in cooperation on combat simulation and strategic planning. The United States has also upgraded its military ties with Taiwan, and has begun to share more information and assist with training. More than 100 visits are made by U.S. officers to Taiwan every year, and hundreds of Taiwanese officers have been trained in the United States. RAND Corporation, an influential U.S. think tank, has called for increased military cooperation with Taiwan, as well as integration of Taiwanese and U.S. command and control (C2) systems in the operational area of the island. RAND also suggests “quartering” the Strait, i.e., assigning Taiwanese submarines the area east of the center line of the Strait while U.S. Navy ships patrol the western area closer to the mainland. RAND believes that this will help the Taiwanese combat PLAN submarine warfare.¹³¹

Can the PRC Invade Taiwan?

Although there are dissenting opinions, the general consensus among area scholars, analysts, and policymakers is that a PRC invasion of Taiwan is not an imminent threat. So long as Taiwan does not proclaim independence, and foreign powers, i.e., the United States, do not become involved, the tension will subside and there will be no crisis.¹³² There are a

variety of reasons for this view, including the fact that the PLA is not capable of launching an amphibious invasion in its present state. The CCP would take a great risk in invading Taiwan because if they fail to deliver a knockout blow, they may lose domestic support as well. There are also potential issues related to identity Such indecisive bloodletting would close off any prospects for voluntary unification for one or [probably] more generations."¹³³

The PLA does not have the capacity to overwhelm Taiwanese forces provided with U.S. support. Further, economic growth has been the key to CCP prestige and legitimacy. An invasion of Taiwan would roil the relatively peaceful regional environment, and could threaten continued economic growth. This eventuality, combined with a military defeat, could even result in the CCP's removal from power. The critical factor for PLA strategists is to develop methods to forestall any U.S. support which could prevent a quick resolution to an armed conflict over Taiwan. As Taipei and Washington cooperate at high levels regarding military technology, namely, air and missile defense, PLA strategists cannot hope for a decisive military victory through solely conventional means. Instead, the PLA seems to have isolated America's putative weaknesses, such as its shortcomings in ASW capabilities and its aversion to casualties, and will attempt to exploit them by flooding the Taiwan Strait with submarines to make it uninhabitable by the U.S. fleet.

To maintain economic growth, the PRC needs to maintain favorable ties with the United States. An invasion of Taiwan would greatly strain Sino-U.S. ties, slow external investment, and frighten off other potential foreign investors. It could also lead Taiwanese residents to shift their trade to Singapore, Thailand,

Malaysia, the Philippines, and South Korea instead of the PRC.¹³⁴ A war would likely result in a wide range of economic sanctions and would also further strain already less-than-favorable relations with Japan, a major PRC trading partner and competitor in the region. Further, the Japanese government has been under increasing pressure to cancel Article 9¹³⁵ of its Constitution and transform its Self-Defense Forces (SDF) into a full multipurpose military. A PRC invasion would likely increase this pressure to remilitarize Japan, which would become China's greatest threat in the region since, even with Article 9, Japan's naval capabilities far exceed China's.

Even though the CCP is well aware of the deficiencies of the PLA, the political and economic risks involved in an invasion, and the possibility that the PRC will not be successful, it still has not altered its declarative policy. The CCP has refused to bow to countervailing U.S. pressures in the past, and it appears that it will not do so in the future. If China confronts such a dicey prospect, why hold onto such seemingly unrealistic policies? Consistent with the teachings of Sun Tzu and Jiang Zemin's policy on Chen Shui-bian, China is waiting to reach the point of development that it will not be so severely affected by sanctions, is not as dependent on the United States and other Western countries for trade and investment, and has modernized and developed the PLA to a point where the PRC could quickly invade and establish control over Taiwan while simultaneously deterring U.S. involvement. If the PRC is able to achieve these objectives, it will not be as cooperative on the Taiwan issue as it has in the past. Recent flexibility on Hong Kong and Taiwan has likely been adopted out of a felt necessity rather than preference. China, like other nations, will

engage in armed diplomacy if it has the ability to do so. The Taiwan issue is a much more serious matter for China than some Western analysts acknowledge, and, since the issue has not disappeared from the Chinese agenda over the last 100 years, it is not likely to do so in the foreseeable future. The PRC and Taiwan appear to have mutually opposed policies, and neither side appears willing to bend on its core principles, let alone abolish them entirely. The business community and the improved cross-Strait economic ties advocated by Ma Ying-jeo alone will not be able to resolve these differences across the Strait.

Invasion Scenario.

Although doomsday scenarios in current circumstances are unlikely, there are a number of seemingly small-scale events which could trigger an escalation to armed conflict. For example:

- Taiwan's leader makes a high-profile visit to the United States.
- Taiwan purchases a theater missile defense (TMD) system from the United States.
- The United States sells *Aegis*-equipped destroyers to Taipei.
- Human error, flukes of weather, or technological malfunctions during a military exercise cause a strategic missile to miss its intended target, striking either a target from the other side or that of a third party.
- Escalation of a small-scale armed conflict, perhaps initiated by a military exercise interpreted as provocative by the other.
- Rumors or misinformation.

- Disagreements over claims of an overlapping oil-producing zone on the continental shelf of the South China Sea.
- A called bluff that is felt to necessitate a fight.¹³⁶

Planning for a Taiwan invasion has been the focus of the PLA since at least 1993, when the Nanjing Military Region (MR) received weapons priority and training exercises in the region began to increase. A PLA invasion of Taiwan would likely include:

- Precision strikes intended to paralyze the island's infrastructure as well as its command and control nodes.
- A blockade, probably involving missile "tests," which would keep Taiwan's vessels in port and other countries from shipping needed commodities to the island or even traveling through the area.
- The use of the PRC's growing economic strength to choke off any hope of Taiwan's survival as a *de facto* independent state.¹³⁷

All of these actions have potentially negative consequences for PRC. The Taiwan Strait is a busy shipping conduit, and much international air and sea commerce would be adversely affected, with such parties likely to put pressure on Beijing. Further, precision strikes need careful coordination and accuracy, which are often difficult to attain in real-world situations. Moreover, any economic strategy aimed at choking off Taiwan would be long term, thus allowing Taiwan time to find new trading partners and address other problems caused by the embargo.¹³⁸

The PRC wants to avoid as many civilian casualties as possible and would therefore resort to a full-

scale land invasion only if precision strikes against rail lines, shipyards, military and civilian air facilities, and power installations failed. However, the Taiwanese have had more than 50 years to plan and have thus likely foreseen most invasion tactics and developed appropriate countermeasures. For example, the Taiwanese have a backup command and control system. On the economic front, during the 1995-96 crisis, the then-ruling KMT party utilized a stabilization fund to prop up the stock market. Owing to such factors, a surprise attack by Beijing rather than one deliberately staged would likely have the best chance of success. June Dreyer describes the strategy as “begin and end the invasion quickly in order to present the world with a *fait accompli*.”¹³⁹ Potential U.S. military intervention reinforces the likelihood of a PLA strategy based on surprise.¹⁴⁰

The PRC would have a complicated suite of war objectives:

- Eliminate Taiwan independence forces and uphold the territorial integrity of China.
- Replace Taiwanese authority with one compatible with PRC interests.
- Eliminate Taiwanese defense capabilities and cut off its defense links with the United States.
- Restore order by coercing the population to accept the imposed political arrangement.
- Minimize PRC’s war casualties.¹⁴¹

The fact that these objectives would prove extremely difficult and that the potential for failure would be disturbingly high serve as possible deterrents for PRC military action against Taiwan. For example, replacing a democratically elected government in Taiwan could result in a massive uprising and resistance to

PLA forces and CCP leadership. An invasion might well entail the use of as many as 800-1,000 short-range ballistic missiles (SRBMs) and cruise missiles in addition to over 200 advanced fighters and bombers. If launched from the Nanjing MR, most missiles would have only about a 7-minute flight time before they struck Taiwan.¹⁴² The PRC would attempt to achieve its objectives quickly by launching simultaneous land, air, and sea attacks. The conflict would probably be conducted on three levels:

- Level A: Sudden, overwhelming attack on critical strategic and military targets using air power and special forces.
- Level B: Naval blockade of major ports followed by an extended air campaign designed to cripple Taiwan's economic and military infrastructure.
- Level C: Amphibious landing to facilitate a multi-dimensional armored and mechanized attack on Taipei.¹⁴³

An air attack would require precision bombing against military and strategic targets such as: command, control, and communications centers; radar and early warning stations; air force bases; air-defense systems; key railway and road lines; critical supply systems; and oil and ordnance depots. Some believe that the PRC could establish air superiority over Taiwan within 45 minutes if executed effectively. The Taiwanese command and control system must be disrupted early in the campaign to sufficiently hinder the Taiwanese leadership's ability to organize a resistance. To maximize its chances for success, the PLA has purchased (and in some cases indigenously developed) modern weapons systems and advanced technology includ-

ing the Su-27, Su-30, MMK, FB-7A, and J-10 fighter bombers, cruise missile technology, laser-guided and satellite-guided munitions technology, and military space technology. An important point is that Taiwan has been accused in the past of lacking an effective missile defense system capable of intercepting PRC's SRBMs. However, the PLA would have to disable or avoid much more advanced U.S. surveillance and intelligence-gathering systems and cut off intelligence links between the United States and Taiwan. If this could not be accomplished, the effects of a PLA air attack would be very limited.¹⁴⁴

A PRC blockade would be conducted primarily by submarines laying mines at crucial waterways near harbors such as Kaosihng, Keelung, Suao, and the Tsoying Naval Base. The more than 40 diesel-electric submarines of the PLAN, which are equipped with mines and missiles, would most likely be employed to conduct the operations. But Taiwan has put significant emphasis on ASW capabilities to both counter and deter a blockade. Several billion dollars worth of weapons systems and platforms have been acquired from the United States, including 28 S-70C (M) anti-submarine helicopters, eight *Knox*-class frigates, and four minesweepers. Further, in 2001 the Bush administration approved the sale of eight diesel-electric submarines, 12 P-3C *Orion* ASW aircraft, four *Kidd*-class destroyers, and eight CH-53 minesweeping helicopters. The United States has also committed itself to helping Taiwan procure eight modern submarines, potentially from allies in Europe. For a blockade to be successful, the PLA must be able to prevent counter-offensive amphibious attacks against its naval bases. Submarines alone would not be adequate for that purpose and would have to be backed up by superior air support.¹⁴⁵

Amphibious and airborne operations depend on the successes of air and naval attacks. They could be launched only if Taiwan's resistance capability had been severely impaired. The Chinese amphibious assault would likely be carried out by hover-craft and wing-in-ground-effect landing craft, which could potentially transport 10,000-15,000 marines and special forces and their equipment. Airborne operations would involve the PLA's 15th Airborne Corps dropped from Russian-made IL-76 transport planes to attack air force bases in western Taiwan.¹⁴⁶ The objective of initial amphibious and airborne operations would be to secure landing sites that would enable larger complements of ground forces and heavy equipment to be sent. If this was achieved, a massive ground attack would follow.¹⁴⁷ It has also been noted that the PLA may invade Taiwan's offshore island groups and set up bases there.¹⁴⁸ This would require the PLAN to have exclusive control over the seas of the Taiwan Strait, something that could not be accomplished if the U.S. Navy is able to break the blockade or otherwise negate the PLAN's anti-access strategy.

There is speculation that in a conflict over Taiwan either side could engage in unconventional tactics. Some believe that the PRC may detonate a clean electromagnetic pulse (EMP) in Taiwan's stratosphere which would destroy Taiwanese communications while avoiding loss of life on the ground.¹⁴⁹ However, even more troublesome are comments made in 2005 by PLA General Zhu Chengdu: "If the Americans interfere in the conflict, if the Americans draw their missiles and position-guided ammunition into the target zone on China's territory, I think we will have to respond with nuclear weapons."¹⁵⁰

Although the PRC government quickly downplayed these statements, they nonetheless fed specula-

tion that PRC might possibly be willing to go nuclear over the Taiwan issue in order to prevent U.S. involvement. However, this is extremely unlikely, since China's nuclear forces do not come even close to rivaling those of the U.S. arsenal. The use of nuclear weapons in what many nations view as a less than earthshaking territorial dispute would essentially eviscerate China's agenda for a "peaceful" rise to ascendancy. Instead, China will have to rely on less destructive forms of deterrence that could be narrowly directed against actual U.S. weaknesses. Thus its choice once again comes back to submarines and other undersea assets.

The PRC's Second Artillery deploys nuclear weapons only in a manner to deter nuclear war, whereas the United States, Russia, Britain, and France also deploy or threaten to use their weapons in order to deter conventional warfare. The United States is currently implementing a tactical missile defense (TMD) system in addition to a National Missile Defense (NMD) system; this complicates the success of mutual nuclear deterrence since the United States will now possess a "shield" in addition to its "spears."¹⁵¹ The U.S. shield would render the spears of the PRC almost useless, and the PRC does not have the technology or funding to develop a shield at present. In response, China has increased the total number of missiles and warheads using the logic that it would be more difficult to intercept a large number of missiles rather than a smaller number of more advanced ones.¹⁵² This logic, however, is problematic. The PRC does not possess an aircraft carrier, and its power projection beyond its own borders is very limited. Even if numerous ICBMs equipped with nuclear warheads were to be launched at the United States, they would have to be launched

from Chinese soil or from naval vessels/aircraft based in China. These missiles would have to travel great distances and would provide the United States with plenty of warning time to intercept them from bases in Japan, South Korea, Guam, Hawaii, and the continental United States.

In response to the PRC nuclear threat, Taiwan has acquired M-11 ballistic missiles capable of carrying nuclear, chemical, and EMP warheads. The missile is capable of altering its speed and is accurate within five meters. Further, London's International Institute for Strategic Studies (IISS) has claimed that Taiwan has the capacity to develop nuclear weapons within 3 to 4 months if needed. Also, Canada's national security and intelligence bureau has stated that Taiwan has developed 36 types of bacteria which could be used in biological warfare. Taiwan is not a signatory to the Chemical Weapons Convention (CWC), nor does it allow international chemical weapons inspections.¹⁵³ It appears that Taiwan has also embraced the concept of strategic ambiguity, thus potentially denying Beijing the luxury of an assured clean, quick takeover of the island even if U.S. involvement was negated or prevented.

Environment and geography work in favor of Taiwan since the waters of the Taiwan Strait are extremely rough, making it very difficult for the PLAN to conduct an effective naval blockade.¹⁵⁴ There is also a central mountain range which covers almost half of the island and runs nearly the entire length of Taiwan. If necessary, Taiwanese forces could retreat into the mountains and resort to guerrilla tactics to prolong the war and either allow third parties time to intervene or break the spirit of the PLA through unacceptable casualty rates. Taiwan has one of the world's highest

population densities, with more than 540 people per square kilometer.¹⁵⁵ Such a concentrated population could lead an urban insurgency of such intensity as to dwarf almost any similar occurrences in recent history.

U.S. Military Involvement: The X Factor.

Taiwan has a limited ability to defend itself as a result of its small domestic market and difficulties in purchasing foreign weapons ensuing from many nations' fears of upsetting Beijing. There are approximately 380,000 Taiwanese troops, while the nuclear-equipped PLA has roughly 2.25 million.¹⁵⁶ Without U.S. assistance, Taiwan might be overrun by sheer numbers alone, and while Taiwanese ground forces are competent, they do not train enough, and there is not nearly enough emphasis on conducting joint force operations. Moreover, ground forces, whose role in an invasion would not be nearly as pivotal as the navy and air force, were given procurement priority at the expense of the other branches. The Pentagon has been critical of the Taiwanese military, especially in regard to its C4ISR logistics system, stating that is not sufficiently robust for properly coordinating Taiwan's armed forces. In addition, a still-classified U.S. report from 2001 states that, despite some improvements, Taiwan is not prepared to respond to a first strike by the PRC. Its air and naval bases, radar stations, and other key military facilities remain vulnerable to precision strikes. A Hong Kong newspaper claimed that the PLA has identified and analyzed Taiwan's six major defensive lines and is confident that it can penetrate all of them.¹⁵⁷

In today's military balance, U.S. funding, technology, conventional and unconventional weaponry, and

power projection are far more advanced than that of the PLA. Robert Ross of Boston College summarizes:

The conventional superiority of the United States enhances the United States' credibility to intervene in regional conflicts and thus deter war. . . . The United States-China military balance undermines PRC confidence that it can deter United States intervention on behalf of Taiwan. . . . China has enough respect for United States resolve that United States-China asymmetric interests do not appreciatively enhance China's confidence that it can use force without it leading to United States intervention.¹⁵⁸

Even if a conflict ensues across the Strait while the United States is preoccupied in other areas of the world, much like it is now in Iraq, Afghanistan, and potentially Iran, the United States will still be the deciding factor in any war scenario. An ample supply of aircraft carriers, the world's most advanced fighters, bombers, missile forces, and a larger, more advanced nuclear arsenal would, if the United States decided to deploy them, raise the stakes in the conflict to a level that Beijing, even allowing for China's continued rapid development, would not be willing to accept. Without U.S. assistance, Taiwan may not be able to resist the PRC. However, due to extensive U.S. involvement and investments in Taiwan's affairs since the end of World War II, the withholding of U.S. assistance is highly unlikely to happen. Taiwan is pro-Western, democratic, and a key balancer of PRC power in the region. The United States will not allow it to quietly merge into the PRC without a favorable agreement beforehand. Nonetheless, deterrence works both ways. If the PLAN, by effectively employing difficult-to-track submarines, can induce the United

States to second-guess its ability to enter the Taiwan Strait, many clear U.S. conventional advantages could be neutralized. This would give Beijing more military and policy options with regards to Taiwan. Given this reality, the PLAN's underwater capabilities will remain a U.S. preoccupation for the foreseeable future.

The Simmering Spratly Islands Dispute.

The South China Sea is a multilateral welter of conflicting claims regarding the sovereignty of island features and vast areas of maritime jurisdiction. In the middle of this disputed area lies the Spratly archipelago, to which six states have laid claim.¹⁵⁹ This dispute serves as a major source of tension in Southeast Asia and remains one of the region's major potential flash-points in the 21st century. In the event of a conflict, at least six nations could quickly find themselves involved in a highly complex situation in which a clear winner would be unlikely.

The Spratly Islands consist of more than 100 small islands or reefs which are surrounded by rich fishing grounds and potential gas and oil deposits. China, Taiwan, and Vietnam all claim to have sole ownership of the islands, while Malaysia and the Philippines each claim ownership of part of the island chain. As a result, about 45 islands are occupied by a relatively small number of troops from China, Malaysia, the Philippines, Taiwan, and Vietnam. As if this weren't trouble enough, Brunei has established a fishing zone which overlaps the southern reef, but this country has not yet made any formal claim.¹⁶⁰

The question of who owns the other 400-plus rocks, reefs, and islands scattered throughout an 800,000 square-kilometer area within the South China Sea was

largely ignored until the 1970s. Recently, however, Vietnam, Taiwan, Malaysia, the Philippines, Brunei and a rapidly-growing China have all staked overlapping claims in some form to the Spratly Islands.¹⁶¹ Chinese, Taiwanese, and Vietnamese claims are based on historical ownership, while the claims of Malaysia, the Philippines, and Brunei are supposedly in line with international law regarding mineral bed zones and the continental shelf of the claimant nations. According to the UN Convention on the Law of the Sea (UNCLOS), proximity makes for a much stronger case than history. The documentary background for the various territorial claims in the South China Sea is not extensive, and the historical records are often contradictory. As a result, none of the claimants offers unassailable historical or legal claims.¹⁶² Modern international law holds that merely discovering a particular territory is not sufficient for the discoverer to be granted a valid title of ownership over the territory. Rather, discovery creates only an inchoate title which must be solidified by subsequent continuous and effective acts of occupation, generally construed to be permanent settlement.¹⁶³

The Philippines' claim to the Spratly Islands was first expressed in the UN General Assembly in 1946, but their involvement in the Spratly Islands did not begin until 1956. Their claim is based on the discovery of the unclaimed islands of *Kalayaan* (Freedomland) by Thomas Cloma in 1956. This is one of the most hotly contested claims, and the security commitment between the United States and the Philippines has been consistently interpreted by the Washington as excluding *Kalayaan*.¹⁶⁴ The Chinese and Vietnamese claims to the Spratly Islands are based on both historical claims of discovery and occupation. Taiwan's

claims to ownership of the Islands are similar to those of China. However, China's claim is the most extensive and covers not only the entire Spratly archipelago but the other three island groups in the South China Sea as well.¹⁶⁵ Beijing has also been the most aggressive in pursuing its claims and refers to the islands as the Nansha Islands. Tensions between China and Vietnam began in January 1988, resulting in a sea battle in March 1988 during which the Chinese Navy sank two Vietnamese ships. Although the nations involved now appear to seek to resolve the dispute through political means, tensions still remain high in the region, and some even feel that China's claims to the Spratly Islands are intended to throw other claimants off balance until it is able to enforce its claim through intimidation or force.¹⁶⁶ China's ultimate aim is to achieve effective deterrence through strategic ambiguity, similar to its approach towards Taiwan. Given the operational and logistical challenges facing the PLAN in an invasion scenario in which China sought to enforce all of its claims by force, Beijing will likely rely on bilateralism and on attempting to force individual states to second-guess any of China's potential aggressive action in the South China Sea. The PLAN's conventional shortcomings vis-à-vis the United States are well-known and must be taken into account due to Washington's close ties with several of the claimants. Once again, it appears that the use of submarines is China's most effective option for convincing regional claimants, and indirectly the United States, that the cost of intervention is too high, given the unknowns and risks involved.

Malaysia has been involved in the dispute since 1979. Although it currently controls only three islands, Kuala Lumpur still claims the whole chain based on

the argument that the islands are part of its continental shelf and that this grants it a right to the islands under the Law of the Sea Convention.¹⁶⁷ After gaining independence in 1984, Brunei staked its claims on the same basis as Malaysia, but its claim is much more limited in that it involves only one island. Nonetheless, none of the six parties seem willing to back down from their stances on the issue, and politicians and scholars continuously debate the legal basis and merits of each country's claim. However, none of the verbal back-and-forth effectively addresses the question of whether the claimants will resort to armed conflict over the Spratly Islands or other disputed territory in the South China Sea. The legal strength of an individual claim is relevant only in a negotiated settlement and may not count for much in the event of hostilities, a reality China would have to consider given the weak legal basis of its claim.

Meanwhile, the decision on whether and when to resort to armed conflict will be governed more by opportunity, strategic considerations, and political will than by the legal basis of any claim.¹⁶⁸ This situation poses a clear dilemma for Beijing in that, by circumventing or flouting international maritime law, it risks jeopardizing its image as a responsible rising power which adheres to international law as well as regional agreements. China's behavior in the South China Sea will influence how its wary neighbors perceive it and also how receptive other nations, such as those in the Middle East, Africa, and Latin America, will be to resource-based relationships with Beijing. If China comes to be seen as a bully in resource disputes, the perception could negatively affect its economy.

Why the Spratlys? Causes of the Dispute.

The dispute over the Spratly Islands in the South China Sea presents a major obstacle to realizing the goal of sustainable peace and stability in the region. The dispute is particularly sensitive and dangerous, since the islands are perceived by both regional and Western politicians as challenges to the integrity of the nation states and to the strength and effectiveness of their respective governments.¹⁶⁹ Why are the Spratly Islands so valuable and what are the causes of the dispute? One reason stems from the varying interpretations of the proper application of international law of the sea and the concept of an Exclusive Economic Zone (EEZs). The doctrine of EEZs gives a controlling state the exclusive right to resources within 200 miles of its land.¹⁷⁰ Also, not surprisingly, the majority of international disputes involve states which are neighbors, with variables within the regional environment assuming greater significance. Further, strategic analysts view the Spratly dispute as the result of a power vacuum in post-Cold War East Asia. Political control of these islands offers strategic and potential economic benefits, the main factors behind the often-heated negotiations over ownership. China very likely views some of these islands as potential sites for PLAN facilities it feels will help the PLAN to secure trade routes and ensure the free flow of energy into China. They also provide Beijing with the opportunity to make its threat to invade Taiwan more credible, thus enhancing China's leverage and increasing the likelihood of Taiwan's agreement on terms favorable to Beijing without actual fighting. Further, if China can exert control over these areas, the United States will be forced to deal with China and the PLAN on

a more equal footing in regional maritime security discussions. Given the high stakes involved, China is unlikely to voluntarily cede such strategically significant areas to its Southeast Asian neighbors, including of course Taiwan.

The desire to make strategic, legal, and political gains at the expense of other contending parties is undoubtedly a major reason for the rush to establish sovereignty over these islands.¹⁷¹ Efforts to deal with sovereignty disputes in the South China Sea have not been successful, since none of the countries, especially China, are prepared to discuss these issues in a serious and sustained fashion. China opposes multilateral talks on the Spratly Islands because its sovereignty over the islands is deemed as non-negotiable by Beijing. In addition, China is keen to demonstrate that it intends to play the leading role in the evolving economic and security order in the region. China's stance regarding negotiations is thus likely to harden as its economy and military power strengthen. China fully intends to build naval facilities in the Spratly region in order to enhance its force projection capability, secure oil shipments, and gain a strategic edge against Taiwan. China also seeks to secure exploration rights for the potentially massive oil and natural gas reserves believed to lie beneath the surface to feed its rapidly growing manufacturing-based economy.

Another cause of the dispute is national concern over territorial integrity. With a history of colonial humiliation, South China Sea nations are especially sensitive to these kinds of disputes.¹⁷² This concern may push some of the disputants, especially Vietnam and China, to stake their historic claims to the Spratly Islands more aggressively than they otherwise would. For example, China, which holds an ancient claim to

the Islands, is very likely motivated by the desire to secure at last its long-claimed frontiers and come one step closer to reuniting the Middle Kingdom. Similarly, Vietnam, which has a consistent modern history of occupying and using the Islands, may consider securing them a matter of national pride and reputation.

The region contains some of the busiest shipping lanes in the world. During the 1980s, at least 270 ships passed through the Spratly Islands region each day, and currently more than half of the world's supertanker traffic (by tonnage) passes through the region's waters every year.¹⁷³ Obviously, instability or unilateral control by a hostile power could result in the disruption of vital shipping conduits, leading to higher commodity prices or shortages, higher risk premiums for ships which transit the region, and a possible regional reduction in foreign investment resulting from perceived regional instability. A sudden evaporation of foreign capital would have a devastating effect on many Southeast Asian economies, including China's, and could negate years of market-oriented reforms and economic modernization programs.

The Spratly Islands impasse is thus not merely a squabble over a coven of barren, uninhabitable islands; it resonates with implications for greater Southeast Asian security. The Islands would be of strategic significance in sea lane defense, interdiction, and surveillance in the event of any conflict, such as one over Taiwan.¹⁷⁴ This reality has been brought into bold relief by recent suggestions that China has annexed and occupied various Spratly islands not for resource exploitation, but for surveillance purposes. For example, Mischief Reef would be an ideal site from which to observe U.S. naval activity in Filipino waters. The United States also has salient national security inter-

ests in maintaining unimpeded transit rights on the surface, in the air, and under the sea throughout the South China Sea; in particular, the United States wants to be able to help protect Japan in the event of hostilities.¹⁷⁵ In addition, although Washington is aware that its security role in Asia is decreasing,¹⁷⁶ it must avoid being seen as displaced by the Chinese. This would cause several nations with strong defense ties to the United States—Japan, Taiwan, South Korea, the Philippines, and Singapore in particular, and possibly even India—to question the merits of their relationship with Washington. Such a development would be a foreign policy disaster for the United States, greatly accelerating the decline of its influence in the region.

Arguably, however, the basis for the dispute in the Spratly Islands truly comes down to resources. The South China Sea has been estimated to hold oil and natural gas reserves worth \$1 trillion, and a 1995 study by Russia's Research Institute of Geology of Foreign Countries estimates that approximately six billion barrels of oil could be located in the Spratly Islands area. This has added new dimensions to an already complicated conflict, and has made the islands a doubly valuable prize.¹⁷⁷ Further, all of the nations involved in the dispute have developing economies, and access to the hydrocarbon wealth under the Spratly region is seen as essential for each state's continued economic security and long-term, sustainable growth. A mutually agreed settlement or compromise in this area will be difficult since energy competition often becomes a zero sum game, and China's naval power is much stronger than that of its regional counterparts. The oil fields cannot be easily parceled, since one state's extractions may deplete another state's reserves.¹⁷⁸ The level of attention to the conflicting claims in the

Spratly Islands has increased in proportion to estimates of the area's resource potential. As speculation about possible hydrocarbon resources has grown, the claimants have scrambled to reinforce their claims; this has led to heightened tensions. Although hydrocarbon potential has been the main focus of the disputants until now, fisheries and other marine resources, navigational safety, and environmental concerns may become equally critical issues in the future.¹⁷⁹

Interestingly, although the six nations involved have adopted hard-line stances over their claims, the Spratly Islands have not attracted much attention from outside powers despite their massive hydrocarbon potential. However, if a credible feasibility study for commercial extraction is completed, this situation could change entirely, greatly exacerbating tensions, as all six parties would undoubtedly redouble their efforts to gain access to the foreign capital and heightened diplomatic clout that often accompanies the possession of vital natural resources. Conversely, a study could also serve to ease tensions if the massive expectations already lavished on the Spratly Islands are not to be realized. Regardless, a comprehensive and reliable feasibility study is a *sine qua non* for resolving the present deadlock over the Islands.

The Sovereignty Issue – An Obstacle to Dispute Settlement.

Sovereignty issues over the Spratly Islands have existed for centuries. Lately, however, the debate has intensified and now constitutes one of the main threats to Asia's peace. Sovereignty is perceived by each claimant as exclusive and sacred, with none seeming likely to relinquish its claims without strong pressures

or incentives. While nations wax eloquent in citing reasons for their sovereignty over the Spratly Islands, these claims remain tenuous and problematic, "based upon incomplete, inconsistent historical data, ancient oriental concepts of ownership, and imaginative interpretations of contemporary international law."¹⁸⁰

Many academics have expressly focused their writings on China in the Spratly Islands dispute, since the resolution of the dispute largely hinges upon China's intentions on the issue of sovereignty.¹⁸¹ At present, China arguably poses the greatest threat to regional peace and stability, with Beijing having made unilateral inroads into the South China Sea area and continuing to refuse to compromise on sovereignty issues. China is also a permanent member of the UN Security Council and, as such, has veto power. This status nearly guarantees that the Security Council will never be in a position to adopt resolutions or impose economic sanctions in this matter which are inimicable to China.

Sovereignty has both legal and political dimensions. For China (as well as Vietnam for that matter), political sovereignty is a sensitive matter, and any challenge to China's claim to the Spratly Islands would be considered a challenge to China's domestic sovereignty.¹⁸² Recent Chinese offers to negotiate sovereignty and allow for joint exploitation of resources should, based on long precedent, be viewed with considerable suspicion. For example, in 1992 Beijing demonstrated that it was willing to break its own solemn commitments mere months after they were made when the China National Offshore Corporation signed a joint exploration contract with U.S.-based Crestone Energy Corporation without consulting the other claimant nations. Further, China has consistently refused to sit

down at multilateral negotiating tables.¹⁸³ Because of these actions, it is reasonable to assume that a negotiated resolution over the sovereignty issue among the claimants themselves is unlikely. In addition, Beijing appears increasingly sensitive over perceived threats to its internal stability as seen in rising levels of nationalism and growing domestic discontent with China's political system and economic disparities, which many believe are driven by corruption.

Consequences of Conflict.

To date, the most serious confrontation to take place in the Spratly region occurred in 1988 when Chinese forces evicted the Vietnamese outpost on Johnson Reef. A repetition of such incidents should not be ruled out or lightly dismissed. A conflict in the Spratly region would have an immediate impact on the global economy. It would also put pressure on the United States to intervene, since it has defense guarantees and treaties with a number of the claimants. However, Washington would be highly reluctant to become entangled in a multilateral conflict involving several close allies. Moreover, armed conflict over the Spratly region could easily snowball into a larger regional or even global conflict. China could very possibly be tempted to capitalize upon the distraction entailed by the resulting imbroglio to venture an attack against stretched defenses of Taiwan, thus bringing it one step closer to the goal of reunifying China. Much of the PLA's training has been Taiwan-focused, and most of its ballistic missile arsenal is deployed in nearby Fujian province. As we noted earlier, any invasion of Taiwan would involve a naval blockade and the use of sea mines, actions posing a major hazard

to commercial shipping even after the cessation of conflict (since mines tend to move and often come to drift freely). If China is to physically enforce its claims, the PLAN will be the primary tool of this action and will seek to take advantage of the fact that, while its capabilities on and above the surface are relatively well known, its activities under the surface are not. Much like the case with Taiwan, any PLA invasion of the Spratly Islands would depend greatly on speed, stealth, and the ability to bring about a *fait accompli* as quickly as possible while deterring any potential U.S. (or Japanese) involvement.

Any Chinese invasion of Taiwan would prompt an immediate response from the United States inasmuch as Taiwan's security is guaranteed under United States law.¹⁸⁴ Since near the end of the Chinese civil war, the United States has trained and equipped the Taiwanese military and cooperated with it in many areas, including ballistic missile defense. Washington would not willingly allow an ally supplied with U.S. equipment and technology to be swallowed up by Beijing, a stance only strengthened by the fact that the United States often hails Taiwan as the foremost example of a democracy with a Chinese majority. The United States has openly stated that it would like to see a similar system take root on the mainland. Any armed conflict between China and the United States would have disastrous consequences for global stability as well as the international economic system. Aside from the immense loss of life, it would negate many years of painstaking efforts by China to lower poverty levels and secure a path to sustainable development. Furthermore, war in the South China Sea would reopen old wounds, resulting in mutual suspicion and hostility for years to come. Such developments would

significantly impede efforts toward greater regional integration.

An open conflict between the United States and China could well bring about the remilitarization of Japan, one of Asia's largest and most dynamic economies. Japan also possesses some of the most highly trained defense forces in Asia and is believed to have the ability to become a nuclear weapons state very quickly if necessary. Japan hosts U.S. military bases throughout its territory, and these U.S. troops would be quickly mobilized during any confrontation with the Chinese, making Japan a likely target of Chinese missiles as well as its land, air, and sea forces. Pulling Japan into a regional conflict would reignite long-held apprehensions among China, North and South Korea, and many Southeast Asian nations. These apprehensions have to do with Japan's vision for the regional order as well as its putative failure to adequately atone for a wartime past which included systematic mass killings, forced labor and prostitution, coerced conscription into the Japanese Army, and various other abuses which characterized Japanese colonization. Resurrecting the old memories would further disturb the already precarious security balance and could even lead to more belligerent behavior by seemingly peripheral parties such as North Korea, a nation which has previously tested missiles over Japanese airspace and had several encounters with the Japanese Navy.

The Shanghai and Shenzhen Indexes, the Hang Seng Index (Hong Kong), the Korea Stock Exchange, and the Nikkei Index (Japan) are some of the best performing exchanges in Asia and, for that matter, the world. Not surprisingly, despite sometimes strained ties at the national level, trade links have grown exponentially between all three nations (especially be-

tween China and Japan), and Japan's diverse, technologically advanced market is not an attraction China could easily forgo. China also needs massive Japanese assistance when it comes to the development of more environmentally friendly or "green" technologies, since China is keen to reduce its dependence on coal to fuel power plants and also to reduce smog and air pollution in major Chinese cities. Although it is said that business always finds a way, technology transfers from Japan will slow and may even cease if Japan is pulled into any regional conflict with China.

Hostilities in the South China Sea would further inflame tensions between China and Vietnam, two nations which previously littered their shared land border with hundreds of thousands of landmines, some of which are undoubtedly still in the ground. Although relations have improved of late, with China now constructing highways in Vietnam to give landlocked areas of southeastern China and northwest Vietnam access to the sea, suspicion remains.¹⁸⁵ Vietnam recently witnessed anti-Chinese demonstrations in response to Beijing's decision to establish administrative control over three archipelagoes, two of which are claimed by Taiwan. Such demonstrations are rare in Vietnam and likely had overt approval from the Vietnamese authorities. These issues may assume additional importance if Vietnam becomes a member of the UN Security Council.¹⁸⁶

Any conflict with a fellow Association of Southeast Asian Nations (ASEAN) member is likely to harm China's ties with the regional bloc as a whole, given that many member states are already wary of Chinese motives and increased influence. This wariness is especially evident with regard to China's seemingly unwavering support for the Burmese junta, a regime

which has essentially run Burma's economy into the ground despite that country's immense hydrocarbon and other resource wealth. There seems to be little logic behind Beijing's actions to prop up the leadership of Myanmar dictator Than Shwe through arms sales and support at the UN, aside from its aim to secure its energy supplies, preventing the spread of Indian influence, and possibly establishing naval bases. A shaky relationship with ASEAN is a disadvantage that China simply cannot afford as it looks to new export markets to maintain the breakneck growth that it depends on to produce cheap goods and an undervalued currency. Such strain could also harm China's strategic interests in the region, since some Southeast Asian nations could opt for a defense partnership with the United States similar to those of Japan, South Korea, and Taiwan, a development resulting in more U.S. bases in the region.

Fortunately, strong economic ties exist between the Spratly claimants and economies outside of the region, serving as a stabilizing factor and a major deterrent for armed conflict in the near to medium term. All of these regional states are engaged in a race for economic development, and a war in the South China Sea would be extremely damaging for exports-driven economies. However, if the dispute is not resolved by fighting, then the degree to which the claimants have exercised civil administration of the islands so far will become an important element in future legal claims. It is important that no country in the region currently possesses the military capabilities needed to assert and maintain its claims by force. Interstate relationships in the region are generally cooperative, and no claimant has yet discovered commercially viable quantities of oil or natural gas in the Spratly region.

In time, however, it is probable that such a status will change.¹⁸⁷ If China is to minimize the diplomatic fallout associated with a forcible takeover of the Spratly Islands or minimize the risk of an unsuccessful military operation, speed and preponderance of force will be the key.

Sino-Japanese Tension in the East China Sea.

The Sino-Japanese dispute over the Diaoyu Islands (referred to as the Senkaku Islands in Japan, they are a cluster of barren islets north of Taiwan and south of the Ryuku Islands) and maritime boundaries in the East China Sea began to flare when the third UN Convention on the Law of the Sea (UNCLOS III) came into force in 1994. Both China and Japan sought to establish their 200 nautical mile EEZs in the East China Sea and over the islands less than 400 nautical miles distant from the undisputed territories of the two countries. To bolster Tokyo's claims, a group of Japanese citizens constructed a lighthouse on one of the largest of the islands; the Chinese responded by trying to raise PRC flags on the disputed territory. More recently, the scene of Sino-Japanese contention has been the Chunxiao gas field whose surface delineation lies within the recognized Japanese boundary lines, but whose actual subsurface deposit is only partially under Japanese territory. The Chinese began development of the fields in 2003, and, in September 2005, in the face of Japanese protests, sent five naval vessels to visit the area, keeping one warship's gun trained on a Japanese surveillance aircraft the whole time. In 2006, the CNOOC declared the project operational.¹⁸⁸

What makes this territorial dispute with Japan a particular cause for concern is that it occurs in the con-

text of Sino-Japanese political tensions that have been on the rise over the last few years. For example, in late 2004, a *Han*-class submarine intruded into Japanese waters; in the spring of 2005, there were 3 weekends of anti-Japanese riots in major Chinese cities; and in the spring of 2006 there was a temporary suspension of Japanese economic aid to the PRC in response to China's untoward behavior towards Japan. With strong yearnings in Japan to unshackle Japanese military forces from their home defense mission, many Chinese analysts view Japan as a potential threat to Chinese security. They believe that the increasing militarism and nationalism in Japan and closer cooperation with the United States point to a joint Japanese-U.S. effort to contain the rise of China. Accordingly, China is expected to begin developing military capabilities which could deter Japanese involvement, even if only in a supporting role on behalf of the United States, in a conflict over Taiwan – and also to develop capabilities to safeguard Chinese interests in the East China Sea and the Diaoyu/Senkaku Islands.¹⁸⁹ Such capabilities could include the new *Zubr*-class air-cushioned landing craft China agreed to purchase from Russia, which would enhance the PLA's amphibious capabilities.¹⁹⁰

In December 2008, Chinese Premier Wen Jiabao and Japanese Prime Minister Taro Aso during a summit in Kukuoka, Japan, which also included South Korea, openly clashed (again) over the ownership of the Diaoyu/Senkaku Islands. The sovereignty dispute over the Diaoyu/Senkaku Islands has always been a major irritant in Sino-Japanese relations, but Deng Xiaoping decided to shelve this issue in order to promote stability and progress. It appears that this preference for pragmatism remains despite the increase in domestic nationalist pressure which calls for a more

hard-line approach. In either case, the Diaoyu/Senkaku Islands are now completely under Japanese control, and Tokyo has given no sign that this is going to change, suggesting that China would have to use force if it wanted to exercise what it views as its sovereign rights.¹⁹¹ However, China is unlikely to resort to the use of force in the near to medium future since Japanese naval power currently exceeds that of the PLAN, and Tokyo's close defense ties with Washington also serve as a major deterrent to Chinese military action. Although Beijing clearly views these islands as part of its historical territory, the dispute does not evoke the same degree of emotional arousal as the Taiwan issue, nor is this chain nearly as strategically significant as Taiwan, the Spratly Islands, or certain other features in the South China Sea. As such, China is likely unwilling to resort to such a high-risk venture to seize the Diaoyu/Senkaku Islands.

It should also be noted that a measure of conflict between China and Japan looms over the oil and natural gas resources in the East China Sea since resource development has become so profitable and essential. Dividing the benefits between buyer and seller or importer and exporter would be a win-win situation, and if negotiations fail, both sides will lose. If there is a resulting war, the cost will far outweigh any gains for either country.¹⁹² Nonetheless, the rise of China has clearly stirred Japan's competitive impulses, and its posture toward China remains characterized by considerable ambivalence and anxiety. Many Japanese leaders have become more willing to name China explicitly as a potential military threat, and the two countries have engaged in heated debates not only over territorial disputes, but also historical grievances and regional leadership. In recent years, Japan

has moved closer to the United States, India, Australia, and Taiwan, often citing its strained relationship with China. Still, Japan's businessmen and economic planners remain convinced that the nation's economic well-being is tied to continued trade with and investment in China. In the final analysis, both China and Japan are for the first time unified internally, have significant economic and military power, and are capable of influencing events beyond their borders.¹⁹³

Japanese warships are now operating on China's maritime frontiers, as well as in the Indian Ocean, as part of the coalition against terrorism. In April 2002, former Prime Minister Koizumi's cabinet endorsed three new bills designed to give the Japanese Self-Defense Forces more scope and power in the event of external aggression. Soon after, China voiced its concerns over this Japanese move to expand its military and urged Tokyo to abide by its post-WWII commitment to renounce offensive armaments.¹⁹⁴ Many observers considered this Chinese quibble to be a clear reflection of China's desperate realization that it cannot itself exert regional maritime hegemony if Japan is permitted to remilitarize and return to the ways of aggressive real politik.

Key Findings.

In a purely economic sense, a key instrument for encouraging the global flow of energy to China would be for it to allow its domestic price levels to rise above international and regional averages. This would provide energy suppliers and traders the single most powerful incentive not to disrupt supply to China. It would also motivate them to mitigate political interference in business interactions between China and

the rest of the world when it comes to energy. Not only does this tack make economic sense, including helping to correct fundamental disabling imbalances in China's energy market, it would also do more to ensure a stable overseas energy supply than any PLA military action. The critical state of the market seems to be recognized by most of China's top energy analysts, notably Zhang Wenmu, but this awareness has not translated into concrete corrective action so far. With the global economic crisis of 2008 prompting the closure of thousands of small and medium Chinese enterprises (SMEs), the CCP cannot take the political risk of relinquishing energy price controls at this time.¹⁹⁵ Political considerations will continue to trump sound economics.

China still does not have a central energy policy-making body, and it would be an enlightened move for China to establish one as soon as possible if it plans to develop a coherent strategy to ensure its energy security. This body should be headed by a governing committee of former industry executives and energy experts who are independent of CCP discipline.

China's need for international energy imports is rapidly changing from a relative dependence to absolute dependence. The country is unable to control its own development goals without corresponding control over the resources that fuel its economy. Chinese realists argue that China must accelerate its naval buildup, since its military capabilities are disproportionately limited vis-à-vis its accelerating energy interests. They also claim that naval power is the final arbiter of great nations in resolving international trade disputes.¹⁹⁶ However, international energy market dynamics are rendering navies less relevant both in ensuring energy security and in denying that security to an adversary.

Somewhat ironically, China's friendly dealings with controversial regimes actually gain it additional supplies, thereby reducing pressure on the international market. Given the lack of price incentives in China's domestic energy market, these international transactions facilitate the import of crude oil and other forms of energy. The availability of such sources clearly undermines the argument that China requires increased naval forces to protect supply lines that are otherwise fatally vulnerable to naval interdiction. In fact, much of the oil and other energy resources entering China are not even carried on Chinese ships; this reality would make creating an effective naval blockade of China an impossible task unless a hostile party were willing to disrupt the entire global economy and risk strong retaliatory action from the international community as well as the Chinese.

A common perception exists in the Middle East and other energy-producing regions that Chinese economic involvement comes with no strings attached, and that Beijing will remain unmoved by criticisms from Western nations as well as some regional neighbors to abandon the practice of cozying up to unsavory regimes.¹⁹⁷ Many in the region also hope to see China counterbalance U.S. influence in the Middle East in a manner similar to that of the Soviet Union during the Cold War.¹⁹⁸ This balance-of-power method of conducting business and furthering economic interests has served China well in a realist sense and possibly provided it with a competitive advantage over industrialized democracies in the competition for resources controlled by ostracized regimes. Nonetheless, as China's military and diplomatic clout continues to grow, the country will eventually have to modify this approach if it intends to be accepted as a responsible actor by

the West, an acceptance China appears to seek. In line with such considerations, China's increased economic presence in the Middle East, unlike that of the United States, has not coincided with a more robust military presence, a factor that has won Beijing supporters in a region trying to accommodate foreign influence without diluting indigenous cultures and identity. However, if China were to follow the flawed logic arguing that an increased military presence would lead to a corresponding increase in its energy security, China could risk its image as a neutral player in the region.

The United States cannot enforce a naval blockade that would starve China of energy resources. A failed attempt to do so would impair the prestige of U.S. power and damage U.S. diplomacy and the nation's global standing. Moreover, China is steadily reducing its dependence on sea transport and in the process rendering its supply lines less vulnerable to naval interdiction. Both China and the United States would be better served by concentrating on sound market economics and management/distribution practices rather than dedicating substantial military resources to a scenario that is highly unlikely to ever occur.

As opposed to attempting to secure Chinese energy supplies in far-flung regions, such as the Middle East, the PLAN has prioritized regional issues. The PLAN will hope for the best while planning for the worst, but combat preparations will assume distinct forms of asymmetric warfare, since its capabilities lag far behind those of the United States and Japan. The aim is not to hand a punishing conventional defeat to an adversary, but rather to raise the stakes in a conflict to an unacceptable level and prompt an opponent to scale down hostilities or to avoid them entirely, with the latter of course being the more desirable option from China's point of view. Nonetheless, Chinese

concepts of asymmetric warfare and deterrence differ greatly from those of the West. Beijing views asymmetric warfare as a conflict that extends well beyond the military realm and can include a wide range of methods to coerce adversaries in economic and political terms.

The Chinese Ministry of National Defense (MND) has declared unequivocally that it has a right to build aircraft carriers. This declaration has led many to conclude that the development of an aircraft carrier is directly linked to the PLAN's entrée to the Middle East, and that China will seek to challenge U.S. influence in the region by using the same approach that Washington has used in the past to gain its preeminent position—demonstration of military force and the ability to provide a security umbrella for the region. Given the fact that less and less of China's energy needs travel by sea and there are more pressing issues closer to home, these potential aircraft carriers need to be viewed merely as leverage within the context of localized conflict.

With its technological shortcomings, the PLAN will likely place the greatest emphasis on its undersea assets, its submarines, since these can serve as such vital "unknowns" in regional conflict scenarios, thus playing a critical role in deterrence, especially vis-à-vis the United States. If employed correctly and used in an asymmetric, tactically effective manner, mid-tech submarines and the use of sea mines could either deter stronger forces, such as the United States and Japan, or inflict a degree of pain that exceeds the tolerances of the national polities. The PLAN will likely prioritize programs which will prove most useful in probable combat scenarios, which in this case is a local war over Taiwan or under-sea resources that Beijing views as its own.

Thus, what the PLAN lacks in terms of carrier strike groups and main surface combatants is possibly balanced by its considerable undersea capabilities, capabilities further enhanced when employed in littoral waters around Taiwan. China will continue to pursue high-end technologies but will also maintain an emphasis on lower- and middle-range assets, since these are what contribute most to its veiled intent and deterrence. PLA strategists objectively analyze their own capabilities as well as the capabilities of potential adversaries. This analysis enables them to make sound strategic decisions regarding which capabilities to pursue most vigorously. It appears that these strategists have deemed it pointless and unnecessary to engage in a rapid modernization/arms race with U.S. forces in Asia. This fact distinguishes the Chinese from their former Soviet counterparts.

China's tactical undersea fleet will be the cornerstone upon which current and future naval ambitions will be built. These capabilities will make any opposing commander think twice before dispatching forces into the Taiwan Strait, especially slow-moving, unwieldy aircraft carriers which are more vulnerable to mines, torpedoes, and cruise missiles. The fundamental goal of these acquisitions is deterrence, i.e., to effectively convince enemy military commanders and political leaders that the cost of intervention is simply too high. In the case of a Taiwan invasion by China, a *fait accompli* is almost a necessity.

As the two vastly different political and economic systems of Taiwan and PRC continue to develop in different directions, the likelihood of a peaceful reunification, or a reunification at all, is becoming more and more difficult to envision despite growing economic links. Taiwan enjoys European-style living

standards and has the highest level of democratic freedom of any country with a Chinese majority. These luxuries will not be relinquished quietly, and, since the Taiwanese have been able to witness the creeping CCP influence in the governmental affairs of Hong Kong, many Taiwanese likely view Beijing's offer of one country, two systems as a Trojan horse. The PLA does not have the capacity to overwhelm Taiwanese forces provided with U.S. support. This and many other sound reasons discussed earlier argue against a Chinese attack in the foreseeable future.

The decision on whether and when to resort to armed conflict in the Spratly Islands dispute in the South China Sea will be governed more by opportunity, strategic considerations, and political will, rather than by the legal strength of any claim. This poses a clear dilemma for Beijing; by circumventing international maritime law, it risks jeopardizing its image as a responsible rising power which adheres to international regulations as well as regional agreements. Given the high stakes involved, however, China is unlikely to relent or voluntarily cede strategically significant areas to its Southeast Asian neighbors, especially not to Taiwan.

Fortunately, strong economic ties exist between the Spratly claimants and nations outside of the region. These ties serve as a stabilizing factor and a major deterrent for armed conflict in the near to medium term. All of these regional states are engaged in a race for economic development, and a war in the South China Sea would be extremely damaging for such development.

Thus, though surprises of seismic import are always possible, China, Japan, Taiwan and other countries with strategic, political, and economic interests in

the area embraced by the Formosa Strait and the South China and East China Seas will likely find it expedient to continue along the trajectory of peace, stability, and economic development for the foreseeable future.

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key provisions was a major reform in indirect taxes that extended the value-added tax (VAT) to all turnover, eliminating the product tax and replacing the business tax in many services. It simplified the tax structure and unified treatment of taxpayers for some taxes. Energy price reforms included deregulation of coal prices, increases in oil prices, and partial deregulation of electricity prices. A simplified tax code introduced in 1994 eliminated tax rate reductions and tax breaks on energy-efficiency technology development and investment projects. Some banks also began to reduce low-interest lending for efficiency projects. The centerpiece of the package was the introduction of the Tax Sharing System (*fenshuizhi*), which fundamentally changed the way revenues are shared between the central and provincial governments. Under the Tax Sharing System (TSS), taxes were reassigned between the central and local governments. Central taxes (or "central fixed incomes") include: customs duties; the consumption tax; VAT revenues collected by customs; income taxes from central enterprises; banks and nonbank financial intermediaries; the remitted profits; income taxes; business taxes; and urban construction and maintenance taxes of the railroad; bank headquarters and insurance companies; and resource taxes on offshore oil extraction. Local taxes (or "local fixed incomes") consist of business taxes (excluding those named above as central fixed incomes), income taxes and profit remittances of local enterprises, urban land use taxes, personal income taxes, the fixed asset investment orientation tax, urban construction and maintenance tax, real estate taxes, vehicle utilization tax, the stamp tax, animal slaughter tax, agricultural taxes, title tax, capital gains tax on land, state land sales revenues, resource taxes derived from land-based resources, and the securities trading tax. Only the VAT is shared, at the fixed rate of 75 percent for the central government, and 25 percent for local governments. For additional information, see Christine Wong, "Central-local Relations Revisited: the 1994 Tax Sharing Reform and Public Expenditure Management in China," Paper for the International Conference on "Central-Periphery Relations in China: Integration, Disintegration or Reshaping of an Empire?" Chinese University of Hong Kong, March 24-25, 2000; Lynn Price, "Industrial Energy Efficiency Policy in China," Presented at the 2001 ACEEE Summer Study on Energy Efficiency in Industry, Lawrence Berkeley National Laboratory and China Energy Conservation Association, 2001; Mun-Heng Toh and Qian Lin, "An Evaluation of the 1994 Tax Reform in China Using a General Equilibrium Model,"

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Aspiring sincerely to an international peace based on order, the Japanese people forever renounce war as a sovereign right of the nation and the threat or use of force as a means of settling international disputes. In order to accomplish the aim of the preceding paragraph, land, sea, and air forces, as well as other war potential, will never be maintained. The right of belligerency of the state will not be recognized.

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